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IT execs aren't tracking 'soft costs' of battery replacements. PAGE 12

AS YE SOA, SO SHALL YE REAP
Michael H. Hugos gets lost in alphabet soup as he tries to explain SOA. PAGE 10

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ID Thefts Slam Online Brokers

Customer accounts accessed in fraud scheme; losses total $22M at two firms

BY ERIC LAI

Two of the top online stock brokerages in the U.S. disclosed that overseas hackers broke into some of their customer accounts during the past three months, resulting in combined losses of at least $22 million and leading both firms to take steps to bolster their security measures.

Jerry Bartlett, CIO at TD Ameritrade Holding Corp., said in an interview last week that the attacks were launched by identity thieves in Eastern Europe and Asia who used keylogging software delivered via Trojan horses or other malware to steal the account information of users logging onto public computers or their own infected PCs.

The hackers then used existing accounts or created dummy ones to buy shares in little-traded stocks, driving the prices up so they could sell previously purchased shares at a profit. Customers of ETrade Financial Corp. were also victimized by the so-called pump-and-dump scheme, according to ETrade officials.

Bartlett said no data was stolen from TD Ameritrade's own databases, nor were its servers breached during the attacks. But he acknowledged

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BUSINESS PROCESS MANAGEMENT

Many large companies are expanding their use of BPM tools as authorities crack down on corporate malfeasance. The result: What was once a tool to automate simple tasks for small departments is now often mission-critical technology to help keep business processes visible. Heather Havenstein reports

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Mega IT

At corporate giants like GM and Chevron, **everything is big** — budgets, staff, projects, challenges — and IT has tremendous clout. We asked CIOs at **eight colossal companies** for their views from the top.

SPECIAL REPORT

STORIES BEGIN ON PAGE 21.

Clockwise from top left: Bank of America, IBM, Exxon Mobil, Procter & Gamble, General Motors, PI

Energy Efficiency Standard For Servers Moves Forward

EPA, vendors finalize draft of protocol; adoption may hinge on user pressure

BY PATRICK THIBODEAU

IT managers' efforts to hold down escalating server power and cooling costs are being stymied because hardware vendors report energy efficiency in different ways, making it difficult to compare products.

But the U.S. Environmental Protection Agency and a group of major vendors this week plan to release a final draft of a protocol for measuring the energy efficiency of servers. The protocol could be formally approved and put into use within a year. However, the leader of the effort to develop it said last week that it will be important for users to insist that their vendors adopt the standard.

"It's going to take some pressure by the customers. If the customers demand it, the manufacturers will change really fast," said Jonathan Koomey, a consulting professor at Stanford University and a staff

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IN DEPTH BUSINESS PROCESS MANAGEMENT

BPM Keeps Firms Honest

Many large companies are expanding their use of BPM tools as authorities crack down on corporate malfeasance. The result: What was once a tool to automate simple tasks for small departments is now often subsidiary-critical technology to help keep business processes visible. Heather Harenstein reports. PAGE 4

COO BETTY OTTER-NICKERSON saves time using BPM

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Windows Server 2003

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LONDON STOCK EXCHANGE CHOOSES WINDOWS OVER LINUX FOR RELIABILITY

Tom Nagy for The Highly Reliable Times

THE HEADQUARTERS BUILDING of the London Stock Exchange, located in London's Paternoster Square.

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special edition

Reliability Is Key in the "World's Capital Market"

By MICHAEL BETTENDORF

LONDON, Oct. 2006 — When an IT system must process 15 million real-time messages per day, with peaks at 2,000 messages per second, even one second of downtime counts. That's the pressure the London Stock Exchange faced when building Infolect, the Exchange's real-time stock-ticker information delivery system.

The solution had to have rock-solid reliability, nothing less. "Reliability is one of the key attributes of the Exchange in its technology systems. These systems have to work every day, 24/7, to make sure the markets are there," said CIO David Lester, who evaluated both Linux and Microsoft® Windows Server® 2003 for the Exchange's core technology systems. "We looked at a number of different platforms for our Technology Roadmap, and we lined up our business requirements with the capabilities of those platforms, and Windows Server was the clear choice."

In Lester's view, long-term reliability is a function of a solid relationship: "We wanted a deep partnership with an organization that could deliver the kind of mission-critical technology that we needed, and we felt Microsoft delivered just that."

For the full London Stock Exchange case study, plus other case studies and independent research findings on the reliability of Windows Server versus Linux, visit microsoft.com/getthefacts

RELIABILITY NEWS & NOTES: A study re-

BREAKING NEWS: London Stock Exchange Achieves Record Reliability

London Stock Exchange CIO David Lester (above) cites Windows Server as key to maintaining system reliability and performance.

LESTER SPEAKS OUT:

"We looked at a number of different platforms for our Technology Roadmap, and we lined up our business requirements with the capabilities of those platforms, and Windows Server was the clear choice."

—David Lester, CIO, London Stock Exchange

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Mega IT

What difference does IT make in some of the biggest corporations in America? To find out, we talked with eight Fortune 10 CIOs and discovered that their companies — for all their titanic scale and global reach — are grappling with some of the same problems that challenge you. **PACKAGE BEGINS ON PAGE 21.**

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BPM Is Helping Firms Control Critical Business Processes

Business process management tools becoming mission-critical IT need

BY HEATHER HAVENSTEIN

A FEW LAWSUITS were filed by several state attorneys general against large businesses in the late 1990s and early 2000s for crimes like price fixing and kickbacks, many corporations began major efforts to build transparency into client transactions.

Christophe Marcel, enterprise software architect at Integro Insurance Brokers in New York, noted that in lawsuits filed against several insurance firms by New York Attorney General Eliot Spitzer in the early 2000s, "there were a lot of questions about transparency and disclosure of where [insurance] fees came from. There has been an industrywide initiative for quality improvement processes."

Integro, founded last year, is banking on business process management technology to help provide its clients with access to real-time account information through a portal.

One of the core missions of the company — and how it aims to differentiate itself from competitors — is "offering transparency across everything that we do," Marcel said.

"To do that effectively," he said, "you need BPM."

Integro is using San Jose-based BEA Systems Inc.'s AquaLogic BPM Suite (gained through its acquisition of Fuego Inc. in March) for a new client-services application set to go live in the first quarter of 2007, Marcel said.

In addition to providing clients with up-to-date information, the application will give Integro executives visibility into processes through a dashboard, he added.

BPM was once commonly viewed as a tool that a single department could use to automate low-level administrative tasks, but the technology is increasingly being used to handle mission-critical tasks across an enterprise, users and analysts said. The growing interest in BPM is being fueled by maturing BPM suites that allow companies to model new processes, identify potential bottlenecks in existing processes and demonstrate substantial bottom-line returns, users say.

"[BPM] is a really central part of our architecture and how users are going to be doing their work," Marcel said.

> "BPM was so well accepted, we decided we can [now] fix other business processes."
>
> TODD JANUZZI

The BPM resurgence is also bolstered by the growth in companies moving to service-oriented architectures (SOA), analysts said. Many of these firms use BPM software to orchestrate the execution and linkage of the services that make up a business process.

Spot Trading LLC, an equity options trading firm in Chicago, last month began using BPM software to handle its mission-critical expiration process. That process includes dozens of steps that must be taken on the third Friday of every month before 4:30 p.m., when option contracts expire and traders must state their intentions about exercising those options.

"There is no reason for us to believe the [BPM] software is not reliable enough to use in a mission-critical environment," said Govind Rabindran, Spot Trading's director of software development. "The products have matured such that it is just another tool for software implementation."

The company currently uses Lombardi Software Inc.'s TeamWorks BPM software and Web services.

Next year, Spot Trading plans to begin using the Austin-based vendor's tools to create and run exception-based risk management processes, Rabindran added.

Such processes could be used to automatically alert a manager if a trader violates an established threshold that could create risk for the company, Rabindran said. "As soon as these kinds of exceptions occur, they can get to the appropriate people right away, and there will be the appropriate audit trail," he added.

TeamWorks includes an Eclipse-based modeling tool for building processes, a portal for users to collaborate and process-optimization software, Lombardi said.

Continued on page 6

BPM Helping Consolidate Development in Rhode Island

WHILE MANY large organizations are turning to business process management tools to automate and better control corporate processes, the state of Rhode Island is using BPM primarily as part of an effort to consolidate its application development operations.

Rhode Island began installing BPM tools about a year ago, after a state government survey found several redundant applications built by multiple state agencies.

The BPM tools installed in Rhode Island's central IT facility are part of the P8 suite of tools licensed from FileNet Corp., which IBM acquired earlier this month for $1.6 billion.

The suite also includes application development and content management tools, said Mark Treat, who was director of the state's project management office until he left last month for a post at Science Applications International Corp.

At the time it adopted the BPM tools, the state also standardized on the agile software development methodology, Treat said.

Rhode Island is using the BPM tools to create statewide standards for development, officials said. The centralized IT operation is building base applications for tasks such as licensing and forms that can be customized by individual agencies.

"By creating a single BPM environment, we will be able to build applications that meet diverse agency needs," Treat said. "It becomes a shared infrastructure rather than every state agency having its own environment for every application it manages."

Tracy Emerton Williams, the state's CIO, said last week that the central IT development group is already incorporating BPM into several new applications that are or will be deployed statewide.

Treat, who spoke about Rhode Island's BPM project last month at BrainStorm Group Inc.'s BPM conference in Virginia, said in a later interview that the new tool suite and methodology have allowed what was "a great '80s Cobol shop" to improve its development processes.

Treat did acknowledge that the move to the FileNet suite and the agile programming method produced technical and cultural challenges for state workers.

First, the new methodology requires IT developers to move from a traditional waterfall approach to an iterative process that incorporates feedback from users throughout a project. In the past, developers received user feedback only after a project was completed.

"People are used to doing projects where they do big upfront requirement sets," Treat said.

He also noted that the effort to centralize development faced a "fair amount of resistance to change" among business and IT users.

"A lot of agencies are used to owning their own systems," Treat said. "They are concerned about the loss of control. Some people in the IT group resisted because they are afraid their job might not be safe."

The state met that resistance by heavily emphasizing change management, communications and training. In particular, training has been helpful because it "helps alleviate the fear while building the skills," Treat added.

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>
> MARK TREAT

– HEATHER HAVENSTEIN

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> BPM was so well accepted we decided we can [now] fix other business processes.

The BPM resurgence is also bolstered by the growth in companies moving to service-oriented architectures (SOA), analysts said. Many of these firms use BPM software to orchestrate the execution and linkage of the services that make up a business process.

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BPM Trends

Corporatewide use of business process management is expanding because:

- Regulations such as Basel II, the Sarbanes-Oxley Act and the Health Insurance Portability and Accountability Act require better control of business processes to prevent tampering and to provide audit trails.
- Lower-cost and easier-to-use BPM software is becoming available as vendors such as IBM unbundle components of BPM suites.
- Adoption of composite applications that require tools to orchestrate processes is increasing.

SOURCE: [illegible]

Continued from page 4

Harcourt Assessment Inc., a developer of content for scholastic tests, plans to have its first application using BPM software from Savvion Inc. running by the end of this year.

San Antonio-based Harcourt intends to use the Santa Clara, Calif.-based vendor's BPM suite to manage the workflow associated with its core function: providing potential test questions to clients and receiving feedback on that content.

The company, which has long gathered feedback from clients verbally over the phone or in person, plans to use the BPM tools to create an automated online process for the task, said Roberta Henson, a program manager at Harcourt. The company expects to offer the online capability to 500 internal users by year's end.

By the time of full rollout next year, about 1,500 internal users will be using the application, Henson said.

Savvion's BusinessManager suite is designed to allow users to model new processes and then use simulation to identify potential bottlenecks before a process goes into production, the company said.

Henson said she expects the automated process to keep track of when clients approve test questions, the percentage of questions that are approved by clients, and other items. "It is really going to highlight to us where we need to put more efficiencies in and increase the response time for our customers," she said.

Enterprisewide BPM

According to Forrester Research Inc., the BPM market will more than double between 2005 and 2009, growing from $1.2 billion to more than $2.7 billion. Forrester analyst Ken Vollmer said that as stories from early adopters bubble to the surface, more and more companies are eyeing BPM tools for mission-critical applications.

"Organizations are taking a serious look at how BPM suites can improve business operations," he said.

In addition, the maturity of BPM suites is prompting many organizations to shift BPM from a purely departmental effort to an enterprisewide endeavor, Vollmer added.

While early BPM tools focused mostly on integration and process improvement, the products have evolved into "comprehensive technology stacks that can also provide an SOA foundation," Vollmer said.

SRA International Inc., a systems integrator in Fairfax, Va., now has four processes running in a BPM system that is used by 800 to 1,000 employees, said Jason Adolf, project manager at SRA.

The company's goal is to eventually have all 5,000 of its employees using the system, he added.

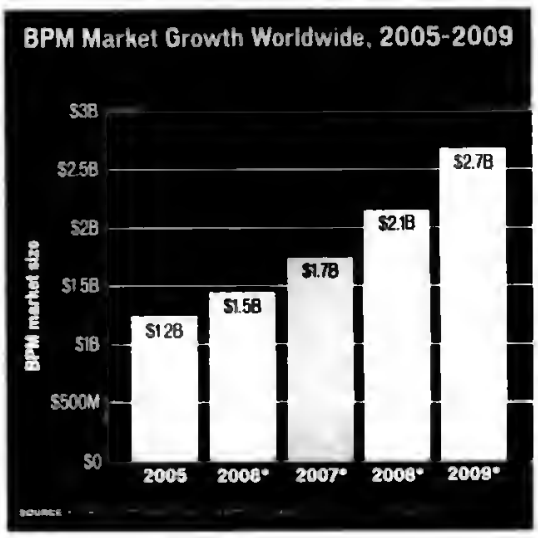
"We're getting such good feedback [about the BPM project] that we have a prioritization list that changes according to the needs of the business," Adolf said.

SRA began using Vienna, Va.-based HandySoft Global Corp.'s BizFlow BPM suite in January to help accommodate the company's rapid growth, he said.

Although SRA's earlier manual customer and subcontractor invoicing processes had worked adequately, "the volume of transactions we were handling was too great for the current staff," he explained.

Before installing BizFlow, SRA had a mix of paper-based processes and processes that were handled with desktop tools such as Microsoft Access, Outlook and Excel. That disjointed strategy didn't allow the company to standardize best practices or provide visibility into processes, he said.

"When things are on paper, there is no way to tell how long things take to process," Adolf said. "There is no way to aggregate how long things sit on a person's desk."



Users Find BPM Cuts Admin Costs, Saves Time

BUSINESS PROCESS management tools can cut administrative costs and the time it takes to complete a task by supporting automated end-to-end processes, some users say.

The Lance Armstrong Foundation, for example, has used BPM tools to create a process that reduces the time it takes to create a direct-mail list and send out solicitations from as long as 60 hours to less than five minutes, said Betty Otter-Nickerson, chief operating officer at the Austin-based nonprofit.

In addition, the organization – which has been using BPM software from Lombardi Software Inc. for the past nine months – has slashed the time it takes it to close the monthly financial books for its retail e-commerce site by 60%, she said.

The charitable foundation also used the BPM tools to create a process that helps its donation processing center more easily get matching funds from a donor's employer than was possible using the old, manual process, according to Otter-Nickerson.

"We undertook BPM as a way to automate as much of our business processes so we could so we could run the business efficiently," Otter-Nickerson added.

Todd Januzzi, vice president of application development at Vornado Realty Trust, said that the commercial real estate company's use of BPM has allowed it to trim the number of accounts payable clerks in each of its four divisions from five or six to two at each location.

"It allowed us not to have to expand the accounts payable department every time we have an acquisition," he said. "We wouldn't have to bring in an entire accounts payable staff from the company that we purchased."

– HEATHER HAVENSTEIN

By using the statistics and metrics accumulated in BizFlow, the company doubled the efficiency of its subcontractor invoicing process, Adolf said. He noted that the BPM system may be expanded to analyze employee performance and to manage the security clearance process required for government employees and subcontractors.

Adolf said commercial BPM tools can help companies overcome the notorious problem of getting users to adapt to the accompanying cultural changes. Such changes often impede the progress of BPM projects.

Commercial BPM systems can accommodate development changes more quickly than custom-built tools can, Adolf said. That helped SRA quickly win the support of end users.

Users were also involved throughout the implementation process, since the company sought feedback from the start, Adolf added.

Vornado Realty Trust, which owns and manages 58 million square feet of real estate nationwide, avoided user resistance to its BPM projects by ensuring that training for its system could be completed in 10 minutes, said Todd Januzzi, vice president of application development.

The training process is "all based on drop-down menus," he said. "There wasn't a lot of keystroking involved."

Vornado's first foray into BPM was an accounts payable and invoice-approval application; the company has since added several other processes to its HandySoft BPM tool, which is available to 500 users.

The next effort, to be completed by year's end, will have the tool manage the Paramus, N.J.-based company's entire leasing process. The new application will automatically generate a lease after a prospective tenant indicates interest and employees perform tasks such as credit checks, Januzzi said.

"BPM was so well accepted, we decided we can [now] fix other business processes," he said.

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"Organizations are taking a serious look at how BPM suites can improve business operations," he said.

In addition, the maturity of BPM suites is prompting many organizations to shift BPM from a purely departmental effort to an enterprisewide endeavor, Vollmer added.

While early BPM tools focused mostly on integration and process improvement, the products have evolved into "comprehensive technology stacks that can also provide an SOA foundation," Vollmer said.

SRA International Inc., a systems integrator in Fairfax, Va., now has four processes running in a BPM system that is used by 800 to 1,000 employees, said Jason Adolf, project manager at SRA.

The company's goal is to eventually have all 5,000 of its employees using the system, he added.

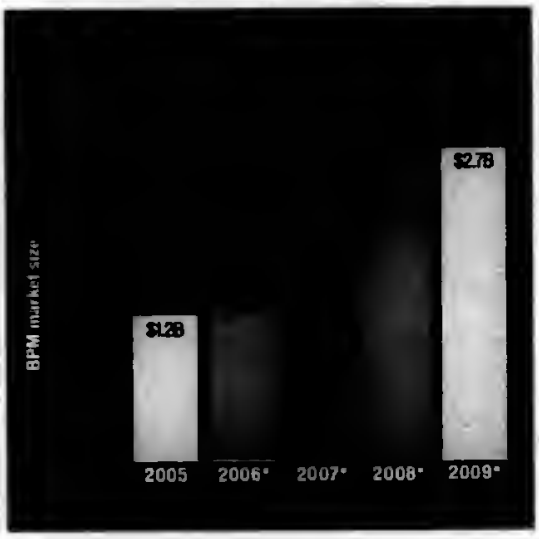
"We're getting such good feedback [about the BPM project] that we have a prioritization list that changes according to the needs of the business," Adolf said.

SRA began using Vienna, Va.-based HandySoft Global Corp.'s BizFlow BPM suite in January to help accommodate the company's rapid growth, he said.

Although SRA's earlier manual customer and subcontractor invoicing processes had worked adequately, "the volume of transactions we were handling was too great for the current staff," he explained.

Before installing BizFlow, SRA had a mix of paper-based processes and processes that were handled with desktop tools such as Microsoft Access, Outlook and Excel. That disjointed strategy didn't allow the company to standardize best practices or provide visibility into processes, he said.

"When things are on paper, there is no way to tell how long things take to process," Adolf said. "There is no way to aggregate how long things sit on a person's desk."



Users Find BPM Cuts Admin Costs, Saves Time

BUSINESS PROCESS

By using the statistics and metrics accumulated in BizFlow, the company doubled the efficiency of its subcontractor invoicing process, Adolf said. He noted that the BPM system may be expanded to analyze employee performance and to manage the security clearance process required for government employees and subcontractors.

Adolf said commercial BPM tools can help companies overcome the notorious problem of getting users to adapt to the accompanying cultural changes. Such changes often impede the progress of BPM projects.

Commercial BPM systems can accommodate development changes more quickly than custom-built tools can, Adolf said. That helped SRA quickly win the support of end users.

Users were also involved throughout the implementation process, since the company sought feedback from the start, Adolf added.

Vornado Realty Trust, which owns and manages 58 million square feet of real estate nationwide, avoided user resistance to its BPM projects by ensuring that training for its system could be completed in 10 minutes, said Todd Januzzi, vice president of application development.

The training process is "all based on drop-down menus," he said. "There wasn't a lot of keystroking involved."

Vornado's first foray into BPM was an accounts payable and invoice-approval application; the company has since added several other processes to its HandySoft BPM tool, which is available to 500 users.

The next effort, to be completed by year's end, will have the tool manage the Paramus, N.J.-based company's entire leasing process. The new application will automatically generate a lease after a prospective tenant indicates interest and employees perform tasks such as credit checks, Januzzi said.

"BPM was so well accepted, we decided we can [now] fix other business processes," he said.

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ON THE

HOT TECHNOLOGY TRENDS, **NEW PRODUCT NEWS** AND INDUSTRY BUZZ

Yosemite Names EMC Exec CEO

George Symons, chief technology officer for information management at EMC Corp., has been named CEO of Yosemite Technologies Inc., a maker of backup software. Symons had held executive posts at Legato Systems Inc. prior to its 2003 acquisition by EMC. A replacement for Symons will be named early next month, according to EMC officials.

Sun Narrows Loss; Solaris Sales Grow

Stronger sales related to increased adoption of the Solaris 10 operating system helped Sun Microsystems Inc. cut its losses significantly in the first quarter, which ended Oct. 1, beating analysts' estimates.

SUN BY THE NUMBERS

Q1 '07	($56M)
Q1 '06	($123M)

Man Charged in University Hacks

A 32-year-old Florida man has been charged with hacking into computer systems at two undisclosed universities and with helping to launch a distributed denial-of-service attack on servers managed by Cambridge, Mass.-based Akamai Technologies Inc. John Bombard of Seminole was charged with two counts of intentionally accessing a protected computer without authorization. He faces up to two years in prison and a $200,000 fine on each charge.

Cisco Names Jacoby To CIO Position

Cisco Systems Inc. has named Rebecca Jacoby senior vice president and CIO. Jacoby, an 11-year Cisco veteran, was previously vice president of customer service and operational systems. In that role, she had been handling some CIO duties. Jacoby replaces Brad Boston, who now heads the company's global government solutions group.

Critics, Misuse Can Damage . . .

. . . your company's brands on the Internet. Businesses with strong corporate brands face a dilemma in trying to control their trademarks on the Wild Web, contends Malia Horine, general manager of digital brand management services at NameProtect Inc. in Madison, Wis.

[illegible] Brands are frequently mocked [illegible] Web sites [illegible] Web 'Stream [illegible] people [illegible] Bar [illegible] Cathcart [illegible] critically assess [illegible] Bar [illegible] Brand [illegible] Nation [illegible] Nation [illegible] Nation

AT DEADLINE

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REVENUE		
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Q1 '06	$2.7B	$123M

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ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

MATTHEW © PAUL.ORG

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Brands are frequently mocked in parody advertisements, and some Web sites vilify companies. (Go to Google and type in "'sucks.com." You'll get about 250,000 hits.) But even the people who do business with you can cause you harm, Horine says. Business partners and affiliates often unintentionally misuse trademarks in promotional efforts they're allegedly making on your behalf, she says. Although you may not want a full-fledged brand-monitoring service, you could tell your brand protectors about a one-time service, called the Brand Aware Report, that NameProtect is launching this week. Horine says that for $1,000, you get a comprehensive, moment-in-time profile of your brands under fire — everything from cases of alleged infringement to knee-slapping parody sites. You've got nothing to lose but your reputation.

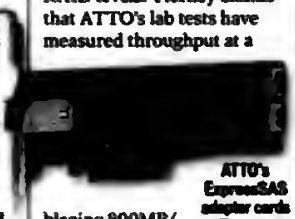
Multimedia app developers want . . .

. . . to make some noise. More and more applications are weaving in streaming media, including audio. "It's difficult to put out something visual that doesn't have to make noise," says Hart Shafer, a senior product manager at Adobe Systems Inc. in San Jose. He adds, though, that most multimedia apps are created by people who have visual flair but may lack expertise with audio. Hence the need for Soundbooth, software now in beta that will be offered as both a stand-alone tool and a module within the Adobe Production Studio suite. Shafer says Soundbooth will have Photoshop-like features for editing audio, including an array of sound filters and special effects.

Developers will be able to customize soundtracks to match the length of video clips with just a few mouse clicks. And the software will come with dozens of royalty-free music samples. Shafer expects Soundbooth to ship in mid-2007; pricing has yet to be set.

Streaming apps, storage to get . . .

. . . faster controllers. If you're working with multimedia programs or managing a near-line storage farm, performance and capacity are critical, says Ed Tierney, director of marketing at ATTO Technology Inc. in Amherst, N.Y. ATTO is developing a line of serial-attached SCSI host adapters that will enter field trials next month. Tierney says each ExpressSAS card will connect up to eight disk drives to a single server or PC. The cards will work with seven major operating systems and support multiple RAID levels. Tierney claims that ATTO's lab tests have measured throughput at a blazing 800MB/sec. Commercial versions of the cards should ship in February at a suggested retail price of $1,095.



ATTO's ExpressSAS adapter cards will support up to eight disk drives.

Software keeps track of properties . . .

. . . from top to bottom. According to Mark Friedman, CEO of Accruent Inc. in Santa Monica, Calif., most companies use their ERP systems with Excel spreadsheets and tons of paper to manage their real estate portfolios. That's fine for a building lease or two, Friedman says. But he claims that any organization with complex landholding obligations needs dedicated software like Accruent's, which also can keep tabs on property development projects. Accruent 6.2, set for release in December, adds support for third-party single-sign-on tools as well as improved analytics and special features for retailers with lots of locations. Friedman says an average installation runs about $1 million.

Charge your handheld devices and . . .

. . . synchronize your data at the same time. When cell phones, BlackBerries, Treos and iPods lose their juice, your mobile workers sometimes lose their cool. A study in Europe last year found that one of the top causes of broken handhelds was end users tossing them in frustration. David Cuthbert thinks he can save your users some aggravation. Cuthbert is president of Newton, Mass.-based Malleable Devices Inc., which plans to ship its miniSynCh universal charger in mid-November. Like its big brother, the SynCh (pronounced "cinch"), the mini model can charge mobile devices through USB ports on PCs, or you can use an adapter to connect to a wall plug or a car's lighter socket. Cuthbert claims that unlike other chargers, the SynCh family simultaneously synchronizes data between handheld and host applications, eliminating the need for users to tote another cable. Pricing for the mini-SynCh is $14.95, and adapters go for $6.95. Hopefully your mobile workers will throw their handhelds less often. ▸

The mini-SynCh can synchronize data while you recharge your mobile devices.

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BRIEFS

IBM Files Lawsuits Against Amazon

IBM has filed two suits against Amazon.com Inc. alleging that the online retailer knowingly infringes on IBM patents. The patents cover, among other things, the presentation of applications in an interactive service, the storage of data in an interactive network, the presentation of advertising in an interactive service and the ordering of items from an electronic catalog. The lawsuits, filed separately in two federal courts in Texas, seek unspecified damages.

Oracle's Buying Spree Continues

Oracle Corp. has agreed to buy MetaSolv Inc., a developer of operations support software for telecommunications service providers, for $219.2 million in cash. Oracle said that it will incorporate MetaSolv into its Communications Global Business Unit and that members of the existing MetaSolv management team will lead the operation. The deal is expected to close by year's end.

BitTorrent Works With Device Makers

BitTorrent Inc. has reached agreements with several companies to embed its file-sharing software in their devices. Asustek Computer Inc., Planex Communications Inc. and QNAP Systems Inc. all signed agreements to embed the software into products such as wireless routers, network-attached storage devices and media servers.

Dell Unveils Servers Based on Opteron

Dell Inc. has unveiled its first servers based on Advanced Micro Devices Inc.'s Opteron processors. The four-socket PowerEdge 6950, priced from $6,500, and the two-socket PowerEdge SC1435, priced from $1,300, debuted at the Oracle OpenWorld user conference in San Francisco. Dell machines were previously based only on processors from Intel Corp.

Siebel Users Seek Better Road Map From Oracle

Customers say they are still waiting for full delivery on promise of acquisition

BY MARC L. SONGINI
SAN FRANCISCO

A NUMBER OF Siebel users last week said they still are waiting for Oracle Corp. to deliver on the promises it made when it agreed to buy the CRM software maker a year ago.

Some Siebel CRM users interviewed at the Oracle OpenWorld user conference here last week said Oracle has been slow to provide details on its pledge to integrate Siebel and Oracle products and to reveal its long-term plans for its CRM product lines.

The $5.8 billion deal closed earlier this year.

Julie Reeves, CRM leader for the office of the CIO at Electronic Data Systems Corp., said she's looking for a road map outlining Oracle's plans for the Siebel middleware products used by the Plano, Texas-based systems integrator.

EDS runs Universal Application Network middleware, which uses Web services to connect front-office Siebel applications to other software, and Universal Customer Master, which gathers information about a company's customers for analysis.

EDS also uses Siebel CRM tools and wants a smooth growth path for those products, Reeves said.

She said Oracle executives have given mixed messages about the future of the Siebel middleware products. Depending on Oracle's plans, EDS may have to replace the Siebel middleware with software from Oracle, Reeves noted. "It's an open question for the future," she said.

At a press conference during the show, John Wookey, vice president of application development at Oracle, said the vendor plans to continue supporting both the Universal Customer Master and Universal Application Network middleware.

He also said the company plans to use the Siebel middleware technologies in the Fusion middleware it is building.

Easing Migration

Reeves said she hopes that Oracle moves to ease the migration to new versions of its tools. The process is now quite costly, mostly because EDS has to customize each new version, she said.

"Easing that migration and helping customers upgrade without significant financial drain is very important," Reeves said.

Some Siebel customers at the conference said that they want more information on whether and how Oracle intends to integrate its internally developed and acquired products.

An executive at an IT services provider called on Oracle to better integrate all of its products, including Siebel software.

The user, who asked to remain anonymous and did not want his company identified, said his division runs Siebel CRM software while the IT services provider's headquarters runs PeopleSoft Enterprise human resources and E-Business Suite financial applications. He said he hopes Oracle will build links between those and other products.

The user's division has several thousand employees who rely on Siebel's field service applications to support customers.

The user also called on Oracle to release a schedule for rolling out common integration standards for its software.

"Ideally, I'd like a detailed road map about when all the [Oracle] products will converge and what the architecture will look like and how it will feel and how to navigate through it," he said.

A couple of Siebel users said that Oracle's services operation has equaled and in some cases exceeded that of the former Siebel Systems Inc.

Richard Napier, business development manager at InFact

Group, a software consulting firm and systems integrator in Plano, Texas, said software patches and upgrades are easier to locate on the Oracle Web site than they had been on Siebel's.

InFact uses Siebel's hosted On Demand CRM applications. Napier did not attend OpenWorld.

"In all our dealings with Oracle, we notice better communication, more efficiently handled service requests and basically more information" than Siebel offered, he said.

Martin Schneider, an analyst at The 451 Group in New York, said the jury is still out on exactly what Oracle will gain from its Siebel purchase.

As Fusion develops, the technology that made Siebel desirable to customers could get stripped down as Oracle creates a common CRM application set, he noted.

Oracle Unveils New Apps, Linux Support Program

SAN FRANCISCO

ORACLE last week unveiled a new version of its Oracle E-Business Suite of business applications and a support program for the Red Hat Linux operating system.

The E-Business Suite 12 software has new features designed to help worldwide operations more easily consolidate data, said John Wookey, senior vice president of application development at Oracle.

The new version was introduced during the company's OpenWorld user conference here last week.

Oracle E-Business Suite 12 is easier to deploy than Version 11i and includes tools to help users more easily execute profitability analysis by channel or product line, Wookey said. Other new features include a Web services repository and links to Oracle's Fusion middleware, according to the company.

The new release will begin shipping within a year, Oracle said.

Oracle CEO Larry Ellison used his keynote speech at the conference to unveil the new support offering for Raleigh, N.C.-based Red Hat Inc.'s implementation of Linux.

The so-called Unbreakable Linux program provides support offerings that are similar to those offered for Oracle's middleware, application and database products. Pricing for the support program starts at $99 per system per year.

The release of E-Business Suite 12 indicates that Oracle intends to continue updating its current products instead of simply forcing users to shift to its next-generation Fusion applications, which are currently under development, said Pat Dunn, president of the independent Oracle Applications Users Group. Dunn is also enterprise program manager for the city of Las Vegas, which is an E-Business Suite shop.

– MARC L. SONGINI

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Sony Battery Recalls Don't Figure in IT Cost Equations

Users not tracking their expenses for replacement work

BY MATT HAMBLEN

THE NEED to swap out millions of laptop PC batteries made by Sony Corp. because they could cause fires isn't fazing 15 IT managers, who last week described the internal disruptions as "minimal" and "part of the cost of dealing with technology."

In fact, despite a report by a consulting firm estimating that the replacement process could impose hidden costs amounting to nearly $400 million on corporate users, two of the IT managers interviewed by *Computerworld* said that the battery situation has had a silver lining within their organizations.

"We used the recall as an opportunity to put our hands on everybody's laptop to provide them with software updates and also the replacement batteries, if needed," said Bill Moore, technical infrastructure manager at the Museum of Modern Art in New York.

A Good Excuse

Only about 20 of the museum's 150 laptops needed new batteries. But Moore said the recalls gave IT "a good excuse to bring in the laptops of users who didn't want to hassle with coming in before."

Eight of 25 laptops needed new batteries at Riester Corp., said Dan Peterson, director of IT at the Phoenix-based advertising firm. The labor amounted to about 10 hours of work by an intern, "so our costs weren't too high," Peterson said. "Actually, I kind of wish more laptops were affected because most of [our] users need new batteries anyway."

The replacements of the lithium-ion batteries began in August, when Dell Inc. recalled 4.1 million of them — a total that it later increased by 100,000. Since then, vendors such as Apple Computer Inc., Lenovo Group Ltd., Toshiba Corp. and Sony itself have recalled batteries sold with their laptops. Sony last week issued a new recall in the U.S. and said it expects to replace 9.6 million batteries altogether.

A report on the recalls released this month by J. Gold Associates in Northboro, Mass., said that replacing each affected battery will cost companies $125 on average, based on the work time lost by end users and IT technicians, plus the cost of shipping new and old batteries between offices.

> I kind of wish more laptops were affected because most of [our] users need new batteries anyway

Analyst Jack Gold, who wrote the report, calculated that the unreimbursed costs would add up to $625,000 for a company that has to replace 5,000 batteries. In all, he predicted that swapping out the estimated 3 million recalled batteries in corporate laptops will result in added costs of $372 million.

"That's an overhead tax on using laptops, and, of course, manufacturers won't cover that cost," Gold said. "In fact, they may laugh at you if you ask to be reimbursed."

Peterson was the only IT manager out of the 15 interviewed who said he had informally tallied the so-called soft costs of replacing the recalled batteries.

The government of Kane County, Ill., replaced the batteries in about 50 of its 400 Dell laptops but didn't bother counting the labor time involved, said David Siles, the county's chief technology officer. "Sometimes it costs more to track the soft costs involved with repairs than to just deal with them," he said.

Schon Crouse, a mobility integration analyst at Children's Hospital Inc. in Columbus, Ohio, said the hospital has replaced the batteries in 20 of its 150 Dell laptops.

As for the staff time that went into the replacement effort, "you'll never get that cost paid back," he said. But Crouse added that the hospital didn't track how much time its workers spent on the batteries.

Craig Mathias, an analyst at Farpoint Group in Ashland, Mass., said many large companies should be able to minimize the time and effort involved in locating affected batteries because they use desktop management software, which can match the names and locations of users to PC and battery serial numbers. ▸

Health Agency Begins Effort To Pull Together Claims Data

BY HEATHER HAVENSTEIN

The U.S. Centers for Medicare & Medicaid Services (CMS) last month began loading information into a new data warehouse that is designed to gather for analysis purposes all of the medical and prescription drug claims collected by the agency.

But beyond its first phase, the project is dependent on feedback from business units about the data warehouse, according to John Evangelist, director of integrated data and program management at the Baltimore-based CMS.

Evangelist said the CMS is currently loading the prescription drug claims data it has been collecting since January under the new Medicare Part D program into what the agency calls an integrated data repository. The CMS plans to put all of the prescription data for 2006, as well as information on medical claims filed by hospitals last year and this year, into the warehouse by next spring. That will involve 16TB of data, Evangelist said.

After the initial loading process is completed, business users "have to make the determination on how much data will be useful" to add to the new system, he said. As a result, Evangelist said he couldn't provide details about the project's overall cost or the potential for phasing out existing data warehouses.

Single Platform

The CMS currently houses about 100TB of data in multiple data warehouses that aren't linked to one another. "There isn't a very easy way . . . to look at all this data without pulling it together," Evangelist said. He noted that the agency's goal is to develop a single system for storing all of the claims it receives, including those filed by doctors' offices, and then integrate the information with data from operational systems and external data sources.

The CMS also hopes that having a single, unified source of information to analyze would improve its ability to identify potential fraud in claims, Evangelist said.

Within the next week or two, the CMS is expected to announce a contract worth more than $50 million with Electronic Data Systems Corp. for a new program that will provide technology for mining the claims data for signs of fraud and abuse.

The CMS is building the integrated repository with data warehouse technology from NCR Corp.'s Teradata unit. The agency is also using Informatica Inc.'s extract, transform and load tools and Cognos Inc.'s business intelligence software as part of the enterprise warehouse project, said Evangelist.

Stephen Brobst, chief technology officer at Teradata, said the model being used to build the repository is designed to capture detailed data for analysis, not summary data. "If you start summarizing data, you're not able to see the relationships in the way you need to — that total picture of all the different health care delivery [methods]," Brobst said.

THE CMS initially will store hospital and prescription drug claims in its new data warehouse.

The new system will also require the CMS to check additional categories of information for data quality problems, Brobst said. In the past, the agency's data cleansing efforts have focused on information required for payment of claims, such as diagnosis and procedure codes. But now, Brobst said, demographic information and other categories need to be cleansed as well to ensure that analysis results are accurate. ▸

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German Railway Tests Biometric Technology

MUNICH

[illegible] shows to start experiments to speed [illegible] at airports by testing systems that use [illegible] to identify travelers. [illegible] at [illegible] in Frankfurt, Cologne and Hamburg [illegible] which was held in Germany [illegible]

■ [illegible]

Munich Mayor Touts Start of Shift to Linux

MUNICH

Even [illegible] delays, the city of Munich is pushing full speed ahead with its migration to Linux on the desktop, said Mayor Christian Ude. Stobl likes what she sees.

"I'm no technology freak, but even I can see that it's been a lot easier to get used to the new software," Stobl said [illegible] speech at the Systems 2006 event. "We're very happy with the results so far."

Munich's municipal government began migrating Microsoft Corp.'s Windows and Office software with desktop Linux and the OpenOffice.org applications suite on about 14,000 PCs last month.

The project started [illegible] a year later than planned, but the city now expects a smooth rollout, Wilhelm Hoegner, Munich's IT director, said that the migration should be completed by 2008, and that he thinks the cost of the project will come in below its budgeted cost of 35 million (US$44 million U.S.).

■ JOHN BLAU, IDG NEWS SERVICE

$43B

High end of the projected range for semiconductor sales in China this year. The market is expected to grow 11% to 15% over last year's level.

SOURCE: ISUPPLI CORP., EL SEGUNDO, CALIF.

SAP Plans NetWeaver Development Service

AMSTERDAM

SAP AG will try to attract new software development blood via an online subscription service aimed at helping developers create applications using its NetWeaver integration technology.

SAP announced the subscription service at the European edition of its TechEd '06 developers conference here two weeks ago, saying it plans to launch the service next year.

The offering will include development and composition tools and will be made available through the SAP Developer Network, a Web site that serves as a central resource for building NetWeaver applications. Rolf Schumann, director and chief technology officer in charge of NetWeaver solution sales in Europe, the Middle East and Africa, declined to disclose pricing plans for the subscription service.

■ JOHN BLAU, IDG NEWS SERVICE

Compiled by Mike Bucken

Briefly Noted

has approved Hewlett-Packard Co.'s $4.5 billion acquisition of Mercury Interactive Corp., finding that the proposed deal wouldn't impede competition in Europe. The EC had investigated whether the combination of HP's and Mercury's products would force competitors out of the performance management market.

■ PAUL MELLER, IDG NEWS SERVICE

has acquired Iterion, a London-based firm that provides project management, business analysis and technology implementation consulting services for human resources and finance departments. Fremont, Calif.-based Sierra Atlantic said it expects the acquisition to strengthen its European outsourcing operations. Terms of the deal weren't disclosed.

has bought Mountain View, Calif.-based Counterpane Internet Security Inc., which provides managed security services to about 550 companies. London-based BT said Counterpane will become a division in its global services group. The purchase price wasn't disclosed, but a BT spokeswoman said it was in the "tens of millions of dollars."

■ ROBERT McMILLAN, IDG NEWS SERVICE

EMC to Unveil Backup Monitor at SNW

BY SHARON FISHER

[illegible] software product [illegible] and NetWorker [illegible] Experts Exchange [illegible] Backup Advisor [illegible] helping users find the root cause of backup problems more quickly.

A spokesman said the older product will continue to be sold as a high-end tool.

Douglas Suyenaga, operations engineer at Luther Manuels, Boldt [illegible] Honored LLP, a law firm [illegible] 400 attorneys in [illegible] and San Francisco, [illegible] EMC NetWorker [illegible] and [illegible] found [illegible] However, Suyenaga [illegible] that the firm had [illegible] to standardize [illegible] the software [illegible] supports Version 7.3.2 of EMC NetWorker backup and recovery tool. The test was put on hold until the firm's San Francisco office upgraded from Version 7.2.

Suyenaga also noted that NetWorker Dashboard lacks a key feature that he requires: the ability to check backups, which includes looking into the backup logs of Microsoft Exchange servers. Nonetheless, the law firm plans to purchase the product, he said.

An EMC spokesman said Version 1 of NetWorker Dashboard doesn't support Exchange backups but noted that the company does offer a tool called NetWorker for Exchange for such tasks.

Lauren Whitehouse, an analyst at Enterprise Strategy Group Inc. in Milford, Mass., said EMC's Backup Advisor software may still appeal to some companies. She said it includes some features, such as customized reporting and alerting, that are not included in NetWorker Dashboard.

NEW PRODUCTS

Other announcements expected at Storage Networking World:

■ [illegible] will announce enhancements to the IBM System Storage DS8000 Turbo that will be available Nov. 17, starting at $178,000.

■ [illegible] will also bring out six models of its 700GB tape media to be available Jan. 26, starting at $5,400 for a 20-cartridge pack.

■ [illegible] will unveil its Virtualizer storage management software, which will be available in December.

■ [illegible] will announce two InfiniteStorage NAS appliances, available Dec. 4, starting at $200,300 and $92,000.

Other software products that EMC will announce at the SNW conference include Backup Manager for SharePoint, a stand-alone backup application for Microsoft SharePoint, and EMC NetWorker Module for Meditech. The latter tool can be used to back up data stored in the Meditech Health Care Information System from Medical Information Technology Inc. in Westwood, Mass.

EMC NetWorker Dashboard Version 1.0 runs on Windows, Linux and Unix and will be available next month starting at $2,000. EMC Backup Manager for SharePoint Version 1.0 runs on Windows and will be available next month starting at $2,500. EMC NetWorker Module for Meditech Version 1.0 runs on Windows, Linux and Unix and is available now starting at $4,950. ▶

GLOBAL

An International IT News Digest

German Railway Tests Biometric Technology

MUNICH

GERMAN RAILWAY company Deutsche Bahn AG is testing so-called intelligent surveillance technology that it hopes can help stop any attempts by terrorists to smuggle bombs onto its trains, which carry 1.8 million passengers daily.

Jens Puls, director of corporate security at Berlin-based Deutsche Bahn, said at the Systems 2006 trade show here last week that the railway is "a couple of weeks" into a pilot project involving a facial-recognition system designed to detect known terrorists or other criminals and then alert security personnel.

As part of the pilot project, cameras have been set up to scan the train station in the city of Mainz in search of 200 people who have volunteered to have their pictures stored in a database. The testing will determine whether the biometric software can recognize their facial features, Puls said.

The Deutsche Bahn test follows failed attempts by terrorists to bomb two trains in July following the end of the World Cup soccer tournament, which was held in Germany.

■ JOHN BLAU, IDG NEWS SERVICE

GLOBAL FACT

High end of the projected range for semiconductor sales in China this year. The market is expected to grow 11% to 15% over last year's level.

Munich Mayor Touts Start of Shift to Linux

MUNICH

AFTER SOME delays, the city of Munich is pushing full speed ahead with its migration to Linux on the desktop, and Mayor Christine Strobl likes what she sees.

"I'm no technology freak, but even I must admit how easy it's been to migrate to the new software," Strobl said last week in a speech at the Systems 2006 event. "We're very happy with the results so far."

Munich's municipal government began replacing Microsoft Corp.'s Windows and Office software with desktop Linux and the OpenOffice.org applications suite on about 14,000 PCs last month.

The project started about a year later than planned, but the city now expects a smooth rollout. Wilhelm Hoegner, Munich's IT director, said that the migration should be completed by 2008 and that he thinks the cost of the project will come in below its budgeted cost of €35 million ($44 million U.S.).

■ JOHN BLAU, IDG NEWS SERVICE

SAP Plans NetWeaver Development Service

AMSTERDAM

SAP AG will try to attract new software development blood via an online subscription service aimed at helping developers create applications using its NetWeaver integration technology.

SAP announced the subscription service at the European edition of its TechEd '06 developers conference here two weeks ago, saying it plans to launch the service next year.

The offering will include development and composition tools and will be made available through the SAP Developer Network, a Web site that serves as a central resource for building NetWeaver applications. Rolf Schumann, director and chief technology officer in charge of NetWeaver solution sales in Europe, the Middle East and Africa, declined to disclose pricing plans for the subscription service.

■ JOHN BLAU, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

The European Commission has approved Hewlett-Packard Co.'s $4.5 billion acquisition of Mercury Interactive Corp., finding that the proposed deal wouldn't impede competition in Europe. The EC had investigated whether the combination of HP's and Mercury's products would force competitors out of the performance management market.

■ PAUL MELLER, IDG NEWS SERVICE

Sierra Atlantic Inc. has acquired Norkon, a London-based firm that provides project management, business analysis and technology implementation consulting services for human resources and finance departments. Fremont, Calif.-based Sierra Atlantic said it expects the acquisition to strengthen its European outsourcing operations. Terms of the deal weren't disclosed.

BT Group PLC has bought Mountain View, Calif.-based Counterpane Internet Security Inc., which provides managed security services to about 650 companies. London-based BT said Counterpane will become a division in its global services group. The purchase price wasn't disclosed, but a BT spokeswoman said it was in the "tens of millions of dollars."

■ ROBERT McMILLAN, IDG NEWS SERVICE

EMC to Unveil Backup Monitor at SNW

BY SHARON FISHER

EMC Corp. this week plans to unveil new offerings in its NetWorker line of backup and recovery software during the Storage Networking World conference in Orlando. The conference is sponsored by *Computerworld* and the Storage Networking Industry Association.

The offerings include a backup monitor called NetWorker Dashboard that's based on core technology from EMC's older Backup Advisor monitor and features management interfaces used in the NetWorker line of products, said Mark Sorenson, senior vice president of information management software at Hopkinton, Mass.-based EMC.

Rob Emsley, EMC's senior director of software product marketing, said NetWorker Dashboard offers better performance than Backup Advisor, helping users find the root cause of backup problems more quickly.

A spokesman said the older product will continue to be sold as a high-end tool.

Douglas Suyemoto, operations engineer at Jeffer, Mangels, Butler & Marmaro LLP, a law firm with about 400 attorneys in Los Angeles and San Francisco, beta-tested EMC NetWorker Dashboard and said he found it easy to use. However, Suyemoto noted that the firm had to halt the beta test at one point because the software only supports Version 7.3.2 of the EMC NetWorker backup and recovery tool. The test was put on hold until the firm's San Francisco office upgraded from Version 7.3.

Suyemoto also noted that NetWorker Dashboard lacks a key feature that he requires: the ability to check backups — which includes looking into the backup logs — of Microsoft Exchange servers. Nonetheless, the law firm plans to purchase the product, he said.

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- **IBM will also bring out six models of its 7006B tape media to be available Jan. 26, starting at $5,400 for a 20-cartridge pack.**
- **McData Corp. will unveil its Virtualizer storage management software, which will be available in December.**
- **Silicon Graphics Inc. will announce two InfiniteStorage NAS appliances, available Dec. 4, starting at $200,300 and $92,000.**

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Data Center Budgets Face Radical Changes

Consortium head says facilities costs are surpassing the price of hardware

BY PATRICK THIBODEAU

The business value arising from Moore's Law, which says the number of transistors on a chip will double about every two years, is being turned on its head by the rising costs of providing power, cooling and other facility support for servers. Those costs now exceed the price of the computing hardware, says **Ken Brill**, *founder and executive director of The Uptime Institute Inc., a consortium of corporations that run very large data centers. In an interview with* Computerworld *last week, he talked about those escalating costs and outlined what IT managers can do to improve data center energy efficiency.*

What's the biggest threat facing data centers? The economic breakdown of Moore's Law.

What do you mean by that? Historically, facilities costs have been 3% of IT's total budget, but the economic breakdown of Moore's Law means that facilities costs [including power consumption] are going to be climbing to 5%, 10% and higher. That will change the economics of IT. The business question becomes, Will IT get more money so the increasing portion of the budget that facilities represents doesn't crowd out other IT initiatives? Or will the increasing facilities [costs] result in curtailing other things? That's the economic truncation of Moore's Law.

What's the business cost of the breakdown of Moore's Law? The business cost is that the return on investment that people think they are going to get is not going to be there.

How can business and facilities representatives work to adapt to increasing facilities costs? The application justification process needs to change so it includes all the cost. Typically, you are looking at just the IT cost of the hardware and the cost of running that hardware.

Companies can't eliminate the use of larger and denser servers, so how can they change the economics? First, when buying equipment, look not only at performance per dollar, but [also] look at performance per watt. Be sharper on buying. IT has to become conscious of energy efficiency and put pressure on the manufacturers to be more energy-aware. That's going to benefit everybody in the long term. A second thing is to kill dead servers — servers that are still running but not actively doing anything.

How much of an issue are dead servers? From 10% to 30% of the load in a data center is represented by servers that aren't doing anything. By turning off those servers, you can cut your energy consumption. The problem is there is no incentive — there is risk but no incentive — to turn them off.

Why isn't the incentive to turn off unused servers apparent? Who has to turn the server off? The data center manager. He's measured on availability, not on costs. You discover the 10% to 30% of dead servers whenever you move a data center, because that's the only time you have to turn stuff off.

What else can companies do to cut data center costs? Consolidate multiple servers onto a bigger platform, which will be more energy-efficient. [And] IT can enable the power-saving features that are now built into many new servers. Finally, IT managers can reduce "bloatware" — software with inefficient code requiring a bigger processor to get through it.

Are companies wasting money on cooling systems? Most data centers are consuming from 20% to 40% more energy then they should because the cooling systems are not well optimized. For instance, here is a common issue in a computing room with multiple cooling units: You may see that one unit is dehumidifying and the unit immediately adjacent to it is humidifying, so you have dueling cooling units.

What can be done to cost-efficiently cool systems in data centers? In 2000, at 500 watts to 1,000 watts per cabinet, you could do anything and successfully cool it. You could be totally incompetent, [and] you could successfully cool it. You may not have done it energy-efficiently, but that was never measured, so nobody knew how badly it was done. As the density per cabinet increases, the mask is ripped off and a user's responsibility becomes apparent. For computer rooms with raised floors, the institute has promoted hot aisles and cold aisles for over 10 years. It's accepted as an optimal solution. But you go into computer room after computer room and you see that the equipment is lined up facing up one direction. As a result, people have hot spots. And if you have hot spots, you go out and buy more air conditioning. ▸

QlikTech Moves to Broaden User Access to BI Tools

BY HEATHER HAVENSTEIN

QlikTech International AB last week unveiled a new pricing model for its business intelligence (BI) tools that it contends will make it far cheaper for companies to provide an unlimited number of users with access to data analysis and reporting tools.

QlikTech, a maker of tools that allow users to analyze and query large amounts of data without having to aggregate it in a data warehouse, said the new pricing option, QlikView for Communities, provides unlimited user access to its QlikView BI tools for a flat rate.

The QlikView tools were previously sold only on a per-user basis. That option is no longer available.

Company officials declined to disclose the flat rate for the new program.

Anthony Deighton, vice president of marketing at Radnor, Pa.-based QlikTech, said the new model can help companies extend analysis and reporting capabilities outside of firewalls to large numbers of customers and partners.

"We take the user issue off the table and simply talk about how many applications you want to roll out," said Deighton.

Michael Schanker, director of marketing at Zyme Solutions Inc., which currently pays per-user fees for the QlikTech tools, said his company plans to take advantage of the new licensing model.

Redwood Shores, Calif.-based Zyme, which analyzes channel data for clients in the high-tech sector, uses QlikView to provide reporting and analysis of data to its customers over the Internet.

Today, most Zyme clients have a core group of power users who access QlikView daily and a much larger group of users who want to access the analyses only occasionally, Schanker said. The customers don't want fees to fluctuate depending on user numbers at any given time, he said.

"People assume whatever reporting or BI tool they have will be expensive, and they are used to the notion that it is restricted to a certain number of users," Schanker said. "We don't want to ask our customers how many people will be using it each month. They don't want [their costs] to fluctuate because 20 more people access the channel data."

> People assume whatever reporting or BI tool they have will be expensive, and they are used to the notion that it is restricted to a certain number of users.
>
> MICHAEL SCHANKER

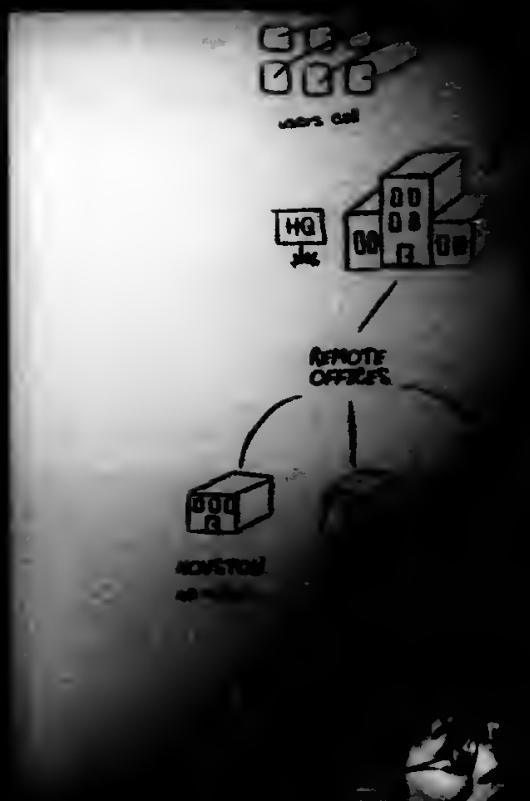
The QlikTech tool set can analyze and query data in memory, according to the company. Data does not have to be moved to a disk-based storage system prior to analysis as it does with traditional BI tools, the company said.

In a research report released this month, Stamford, Conn.-based Gartner Inc. noted that such in-memory methods of data analysis are faster than traditional online analytical processing methods.

Schanker said Zyme chose QlikTech's offering because it's far easier to train nontechnical users to run QlikView than it is to train them to use traditional BI tools.

In addition, because a new cube isn't required each time a hierarchy — such as sales territories or product categories — changes, QlikView can be easily customized for new users, he said. Zyme can usually get clients up on QlikTech within two to four weeks, Schanker added.

QlikTech last week also brought out QlikView Publisher 4, a management tool for large-scale QlikView projects. The updated tool is designed to streamline security and automation administration, the company said. ▸



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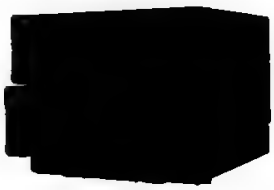

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DON TENNANT

'In This Together'

IN THE PAST SIX WEEKS, I've written four editorials that have addressed Hewlett-Packard's actions as they relate to corporate responsibility and accountability. I've repeatedly taken the company to task for its failure to foster an open, transparent, customer-centric relationship with its users.

DON TENNANT is editor in chief of *Computerworld*. Contact him at don_tennant@computerworld.com.

I recognize that in doing so, I run the risk of being perceived as engaging in opportunistic HP-bashing and having some sort of bias against HP. While a perception of bias is damaging for any journalist, I'm willing to take that risk rather than skirt issues I strongly feel warrant the attention of our readers.

The fact is, there is no incentive for anyone in my position to bash or in any way damage HP or any other technology vendor. My livelihood, not to mention the livelihoods of my colleagues, is dependent on the economic health of *Computerworld*, which in turn is dependent on advertisers like HP. The stronger and more successful HP and other technology vendors are, the more we stand to benefit.

Computerworld certainly isn't unique in that regard. The same is true of the technology suppliers' user communities. And it's especially true of their partners.

Consulting and services companies that have built their businesses by supporting HP platforms have tied their fortunes so closely to HP's success that anything that damages HP damages them. So they're naturally as protective and supportive of HP as anyone wearing an HP badge in Palo Alto. But their exasperation is beginning to surface.

Many of these partners are becoming increasingly disillusioned with the quality of products and services that HP is delivering. And there's no area of greater concern and frustration than customer support.

Some scathing assessments of HP's customer support performance are coming from the partner and user communities, as even a casual review of online forums will attest. Although HP hasn't publicized the fact, it's no secret that the company is shifting much of its product support to India, Costa Rica and China. The problem is that the support technicians in these locations appear to be poorly trained and are often incapable of solving customers' problems.

Last week, I discussed this matter extensively with consultants from two HP partners whose companies specialize in OpenVMS systems. Both expressed concern about a trend they've noticed over the past several months: These support technicians are turning to public user forums to solicit fixes to customer problems. Customer queries submitted through legitimate HP support channels are showing up on forums like Google Groups and HP's IT Resource Center as slightly altered postings from individuals in China and India.

"This is neither professional nor credible and certainly begs the question of the value of an HP support contract," said one of the consultants, Bruce Claremont of Migration Specialties International in Colorado. Claremont stressed that his motivation in raising the issue is not to bash HP, but rather to help the company.

The other consultant, who spoke on condition of anonymity, was highly critical of the current support situation. "It really is as if they view customers as an expense and inconvenience to be handled as cheaply as possible," he said. He, too, stressed that his interest is in helping HP understand customer expectations. "It's not an 'us vs. them' thing," he said. "We're all in this together."

Mike Rigodanzo, HP's senior vice president of technology services, says that customer feedback is acted upon by a dedicated team and that training is his top priority. My colleagues and I have every reason to join HP's users and partners in hoping he's successful.

Don Tennant

MICHAEL H. HUGOS

As Ye SOA, So Shall Ye Reap

I GOT A CALL from a reporter the other day; he was doing an article on SOA and wanted me to clarify a few points for him.

I told him I'd be glad to share my wisdom on the subject. He began by asking me to define SOA. "Oh boy," I thought. "This guy doesn't understand the simplest things. Where's he been for the past three years? I guess it's my duty to explain IT to the masses." I took a deep breath and said, "Now, this is pretty complex, so listen carefully and take notes.

"SOA stands for service-oriented architecture; that means you use services to orient your architecture. Are you with me?"

MICHAEL H. HUGOS is a partner in AgiLinks LLC and a speaker. He is a member of the 2006 *Computerworld* Premier 100 IT Leaders class. His books include *Essentials of Supply Chain Management, 2nd Edition* (John Wiley & Sons, 2006). He can be reached at mhugos@yahoo.com.

"OK, but please explain what that means," he persisted. I told him that you could think of all your existing systems as being made up of services. You could create new systems by recombining services you already have and writing a couple of new services. Presto — whole new applications developed right before your eyes. Of course, you have to make sure those services are loosely coupled so they bind properly at runtime.

"Is this like code reusability, which IT people have been talking about since the mainframe days?" he asked.

I told him no, this is different. This time we really mean it; we're not just talking about it. His next comment was, "This sounds a lot like object-oriented design and programming. Aren't what you now call services the same as what you used to call objects? And weren't those objects also supposed to be loosely coupled?" He was starting to bug me with his smarty-pants questions.

I patiently explained that object-oriented stuff is old hat, last century.

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ancient history. I told him that SOA is the way we do things now and that he should stop cluttering up his head with useless, has-been ideas.

He persisted with this irritating line of questioning, but I did my best to stay calm and polite. "Tell me how this is different from object-oriented," he said. I told him that SOA is standards-based. I figured that ought to put him in his place. Then he asked if these standards are like the old CORBA or DCOM standards. Boy, he was really pushing my buttons now.

I took another deep breath and continued. "In the bad old days, all we had was CORBA and DCOM, and let me tell you, that was a hassle because people didn't agree on those standards, so they weren't any good. Now, with SOA, all you do is make a UDDI — we call that 'Uddie' — and that's what lists all the services in your company. Then you use SOAP, or 'Soap,' to get those services to talk to each other over a service bus. Think of that like a real bus, as in, 'You gotta get the right services on the bus.'

"Then you get those SOA — or 'Sowa' — systems cooking away, and you use complex event processing — we call that CEP, or 'Sep' — to keep track of what's going on. And then the last thing you do to deliver those Sep Sowa systems — we IT guys also like to call them composite applications, or CA (not to be confused with the vendor called CA) — is create a personalized Web-based portal. And there you have it.

"Oh, and I almost forgot: You also need to have a WSDL — that's 'Wizdle' — to be able to define all the objects — I mean services — in your company that you can use to create your Sep Sowas."

Then, to really drive home my point, I said, "And remember, SOA is business-based, not like all that old stuff that came before and fussed over lots of technical bits and bytes things."

The reporter was silent. I figured I'd finally gotten through to him. Then he asked, "Do you know what PCMCIA stands for?"

"Of course," I said. "Personal Computer Memory Card International Association."

"No," he said. "It means 'People Can't Memorize Computer Industry Acronyms.' " Then I heard a click, and the line went dead.

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READERS' LETTERS

E-voting Believers

YOU COULD have it all with e-voting if election officials would simply insist on e-voting machines that print out each person's vote ["Q&A: Go Back to Paper Ballots, Says E-voting Expert," *Computerworld.com*, Sept. 20]. Then the voter could verify the vote he cast before finalizing it. The voter would leave the paper verification (which would not identify him) with the precinct staff to serve as an audit trail for recounts. You would still get the advantage of electronic counting of votes without all the problems associated with manual vote counting. The paper would just be used for recounts or spot checks of the e-voting machines to make sure the counts were correct. It has always been up to voters to make sure they vote as they intended by inspecting their vote.

David McClanahan
Software architect,
Oak Ridge, Tenn.

ELECTRONIC VOTING has been around for over a decade, and, yes, it continues to be haunted by concerns over security, accuracy and integrity. But Avi Rubin doesn't acknowledge that e-voting works very well in states like Nevada.

It's no coincidence that Nevada is leading the nation in e-voting. Nevada's regulation of the gaming industry, particularly slot machines, is stricter than federal and most state regulations for e-voting. In fact, when Nevada introduced its e-voting systems in 2004, the state Gaming Control Board's Electronic Services Division, which is responsible for verifying the security of electronic gambling machines, reviewed the system and declared it secure.

Rubin also doesn't seem to be aware that the Association for Information Technology Professionals adopted a nine-point recommendation for e-voting standards in 2004 based primarily on Nevada's gaming industry regulations, or that the AITP is leading other IT professional organizations in influencing federal and state e-voting standards.

The AITP's nine points are:

1. Public access to the related software to permit independent inspection and confidence in its accuracy.

2. Independent testing, including random spot checks, similar to existing Nevada provisions for slot machine testing.

3. Meticulous, constantly updated standards for machines.

4. Scrutiny of manufacturers to ensure their independence from parties and candidates.

5. An independent testing lab with an arm's-length relationship with the manufacturers it polices and that's open to inquiries from the public.

6. A mechanism for immediate Election Day inspection of suspected defective machines.

7. A mechanism for voter review of paper copies of ballots prior to casting a vote and preservation of those ballots for any required recounts.

8. An alternative voting mechanism, such as early postal balloting, for those who refuse to trust the machines.

9. Random but thorough Election Day parallel testing of voting machines.

Walking away from e-voting is not the answer. It states would incorporate these recommendations in their e-voting requirements, secure and reliable e-voting would be attainable.

Norbert J. Kuhlke, CCP MBCS
Chairman, AITP Legislative Affairs Committee,
North Las Vegas, Nev.

Painful Lessons

I'M SORRY to report that many of us in the trenches read Michael Hugos' article "Lessons Learned From a Major Failure" [Opinions, Aug. 21] and nodded in agreement.

Mark A. Sanderson
Database administrator,
Naples, Fla.

Skills Still Count

PLEASE THANK the writer of "The Myth of 'Versatilists' " [Opinions, Sept. 4] for addressing this industry ruse. Versatilists? Ha! As someone recently in the job market (who thankfully landed a good job), I can attest that it was specific skills and personality that employers were seeking. They weren't interested in a long list of varied skills.

Andre De Leon
Network administrator,
Tucson, Ariz.

VERSATILIST IS a transitional designation. In the future, the worker who will retain his job and grow will be the one who is technically strong *and* can work outside of technology.

Being in technology is no longer about getting to do the cool stuff. It is about bringing value to the table, whether it be monetary, social or otherwise. To do this, one must be able to discuss the technology and show how it can bring value to the business. This is not a versatilist but rather a dual role. Many other professions operate in this way by combining different skill sets. Why should IT be any different?

Troy Michael Stone Sr.
System engineer,
Columbus, Ohio

Overreacting, or Acting Smart?

DON TENNANT'S "Slaves to What-ifs" editorial about the reaction to Dell's battery recall was right on the mark [Aug. 21]. Sometime in the past several years, a lot of folks have gotten the idea that life should be totally safe at all times. Last I heard, none of us get out of here alive, so we need to make the best of it. Cringing in a corner afraid of every "what-if" just isn't a way to live. Planning for the reasonably likely what-ifs and moving on seems to be the best approach to me.

Tom Murray
Senior principal software engineer, Worcester, Mass.

JUST BECAUSE a lot of people read the article about the recall does not mean that they are slaves to what-ifs. I agree that this recall is overkill. The chance of a fire is negligible compared to other day-to-day risks. But the main reason I read the article is that I am a Dell owner. As you know, lithium-ion cells have a very short shelf life of four years. My laptop is two and a half years old. So it's time for me to invest in a new battery anyway. I would be more than happy to exchange my so-called defective battery for a brand-new battery from Dell, at no cost to me. I am sure there are millions of users who feel the same.

Ganesh Kumar Eswaran
Lansdale, Pa.,
ganesh.kumar@yahoo.com

ALL OF US, including Tennant, will actively avoid harm if we can. Do you walk out on a golf course during a storm because the odds of getting hit by lightning are low? Of course not. Do you hold an exploding cherry bomb because odds are you won't get killed? No. Would you not check your daughter's computer, and tell your wife, "Don't worry, the odds are low"?

I just prepared a Dell E1550 for my niece, who is going off to college. I checked the Dell Web site to make sure her battery was not listed. I was confident it wouldn't be, but would I tell her parents, "Don't worry, the odds are low"? I don't think so.

Gary Lavery
Executive vice president,
G.A.F. Seelig Inc.,
Woodside, N.Y.

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

SONICWALL

SPECIAL REPORT

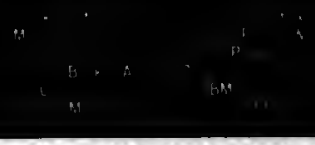
10.30.06

How **technology rocks** these colossal companies.

WHAT DIFFERENCE does IT make in some of the biggest companies in America? To find out, we looked at the top U.S. corporations based on market capitalization and *Fortune*'s top 10 and ultimately chose eight humongous companies with some striking similarities and differences.

The Mega Eight have complex IT organizations with billion-dollar budgets and more employees than most companies. So we relied on the human element to focus each picture, presenting a CIO's view of the challenges and triumphs that make these companies unique. Still, we think you'll see some of the problems you're grappling with writ large in the stories that follow.

WHO ARE THE MEGA EIGHT?



Mega IT

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WHO ARE THE MEGA EIGHT?

Clockwise from left: Patricia C. Hewlett, Exxon Mobil Corp.; Filippo Passerini, The Procter & Gamble Co.; Marty Schoenthaler, ConocoPhillips; Barbara J. Desoer, Bank of America Corp.; Gary Masada, Chevron Corp.; Brian Truskowski, IBM; Ralph Szygenda, General Motors Corp.; Vita Cassese, Pfizer Inc

MegaIT

Where SIZE Is Opportunity

At Chevron Corp., bigger is still better.

BY GARY ANTHES

CHEVRON CORP. accumulates data at a rate of 2TB a day, or 23MB every second. But accommodating that data is seen as neither a technical challenge nor a financial burden — it's an opportunity. "It's an issue of, you have this information; how are you going to search it and use it?" says Gary Masada, corporate CIO and president of Chevron's Information Technology Co.

It's perhaps not surprising that in a company where all numbers are big — $194 billion in sales, 10,000 servers, 1 million e-mail messages handled each day and 3,500 people in IT — size is seen as an opportunity, not a problem. For example, while the current wisdom in many IT circles is to regard mega-projects as too risky, Masada says his best projects span three to five years and cost hundreds of millions of dollars.

"Large projects deliver good returns on investment; small projects don't," Masada says. "Large projects, by their nature, have more integration and are better thought-out. The investment dollars are large enough to make a difference, and they get a lot of focus."

Masada assumed his post three years ago, after the completion of a massive integration of "downstream" systems (those dealing with refining, marketing and transportation) for Chevron, Texaco and Caltex, which merged in 2001.

A new global IT infrastructure, called Global Information Link 2/Net Ready, connected 50,000 desktops and 1,800 company locations and was expected to save the company $50 million annually by eliminating duplicate processes and systems. A spokeswoman says the project has returned a net

Continued on page 24

"Large projects deliver good returns on investment; small projects don't."

GARY MASADA, CIO, CHEVRON CORP.

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> **Part of the idea in information management is that you have a bigger and bigger haystack to find the needle in.** – GARY MASADA CIO CHEVRON CORP.

Chevron Corp.

Establishing Priorities

CHEVRON CORP.

LOCATION: San Ramon, Calif.

BUSINESS: Petroleum products

2005 REVENUE: $193.6 billion

2005 EARNINGS: $14.1 billion

MARKET CAPITALIZATION: $139 billion, as of Oct. 9, 2006

EMPLOYEES: 59,000

IT EMPLOYEES: 3,500

Investing In SIX SIGMA

Bank of America's quality drive is paying off.

BY THOMAS HOFFMAN

Two years ago when Barbara J. Desoer was named global technology, service and fulfillment executive at Bank of America Corp., she immediately began applying to its IT and fulfillment practices the Six Sigma quality management expertise she had developed as chief of the bank's consumer products group.

The investment is already paying off in more efficient processes, better alignment with business and even increased sales.

Bank of America is the nation's third-largest bank in terms of assets, and its IT organization had been applying multiple software development processes across its numerous businesses. Not only was this inefficient, but the divergent approaches also made it difficult for IT staffers to rotate among business units, says Desoer, a 29-year company veteran who has also had stints as the bank's top marketing executive and as president of its North California banking group.

Better Development

Desoer assigned a team leader to use Six Sigma techniques to create a single application development methodology. That standard has been introduced to the consumer and small business banking units and is being rolled out to Bank of America's capital markets and wholesale banking businesses, with its wealth management and investment management groups to follow.

Desoer is optimistic that the standardized methodology will reduce development time and help make developers and project team members more transferable across business

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> **Part of the idea in information management is that you have a bigger and bigger haystack to find the needle in.** – GARY MASADA, CIO, CHEVRON CORP.

Continued from page 22

Chevron Corp.

present value of about $200 million over the past four years. "The object was to allow our workforce to do their work anytime, anywhere," Masada says. "That had finished up quite successfully and linked up the whole corporation."

Indeed, the IT organization that Masada took over had earned a reputation for innovation, technical strength and the ability to execute huge projects, and it had proved it could deliver IT services to the company reliably and efficiently, he says.

But top management wanted more. "I was asked to bring more of a business focus and a stronger alignment with the business," Masada says. "So I instituted Project Everest, which looked at providing the IT blueprint and the investment road map for investments going out five years."

Everest is not an IT project in the conventional sense; it's a strategic framework for the company's biggest and most important IT projects. It's intended to ensure that the projects with the biggest benefit to the company as a whole get the right funding at the right time, and that they get special management attention.

Not all projects fall under the Everest umbrella, nor should they, Masada says. Non-Everest projects are the thousands of smaller initiatives that may be important to one office or business unit but are not strategically important to the company as a whole. In fact, just 20% of the global downstream IT projects are on the Everest road map, although they account for 90% of all project spending.

"They are the huge projects, and they are being very actively managed," Masada says. One Everest project, for example, dubbed Olympic, seeks to consolidate all of Chevron's ERP systems and standardize them on SAP.

Each of the projects under Everest has its own performance targets, including savings that are often in the hundreds of millions of dollars. In addition, Everest itself is expected to contribute $150 million a year in savings and productivity increases, Masada says. "What Everest does is make sure that the IT investments go toward projects that earn the company the most money," he says.

Successfully managing megaprojects means, among other things, using Chevron's homegrown project management methodology, the Chevron Project Development and Execution Process. Known as CPDEP (pronounced "chip dip"), it includes five phases, from "identify and assess opportunities" to "transfer and operate." It was developed for billion-dollar-plus projects, such as deep-water construction, but has been adapted to IT.

Establishing Priorities

In addition to reflecting Masada's belief that the biggest projects have the biggest payoff, Everest works on the theory that individual business units — marketing in Asia, say, or gas exploration in the Gulf of Mexico — don't always set IT priorities that are optimum for the company as a whole.

"What you've got is a lot of little things that are supporting local and regional businesses that are not really connected, are not really designed with the big picture in mind," Masada says. "So what you get is a cobbled mess of wires, where things are just not connected to the right places. From an IT perspective, we didn't go about making sure that what we built was really built for the future."

Project Everest is intended to fix that, he says. "It starts at the top and works its way down. It starts with the business leaders."

Sekhar Venkat, an analyst at Energy Insights, an IDC company, says Chevron's IT initiatives appear to be aimed at closing gaps that exist at some of the largest energy companies: disconnects among the scientific and engineering systems and the people upstream in exploration and production; the systems and people downstream in refining, marketing and transportation; and corporate-level people who want to see everything that goes on.

Chevron has recently begun work on its third Global Information Link project. GIL 1 standardized desktops, laptops and operating systems; GIL 2 built out the network and standard server infrastructure, providing connectivity to operations all over the world. GIL 3 will focus on information management. If GIL 1 and GIL 2 gave users the infrastructure they needed to work with one another, GIL 3 will give them the tools to do so.

For example, GIL 3 will use new technology to tag information so it can be more easily found and shared. It will also create new governance policies and strengthen auditing procedures to ensure that new IT standards are adhered to. That includes the adoption of IT Infrastructure Library, or ITIL, standards for management of IT operations.

GIL 3 will employ Microsoft Corp.'s Vista operating system and its SharePoint product suite for communication and collaboration. SharePoint, which Microsoft says is intended to connect people, processes and systems, will facilitate collaboration among employees, partners and customers, Masada says. With it, employees will be able to create and manage their own Web sites and make them available anywhere at Chevron.

"SharePoint will help us manage projects and share information in real time," Masada says. "We'll have a common source of the truth, as we call it."

"Standardization of platforms allows Chevron to really give visibility to operations, and it allows them to get better business intelligence because it allows for a common view — one view of the state of things, as opposed to everyone seeing things in their own silos," Venkat says.

Moving to SharePoint will be a challenge. Masada says effective use of the suite will require a lot of training combined with big changes in user behavior, including how users tag information before storage and how people collaborate with one another.

But it will help answer the question of what to do with that ZTB of data that's created each day. "Part of the idea in information management," Masada says, "is that you have a bigger and bigger haystack to find the needle in."

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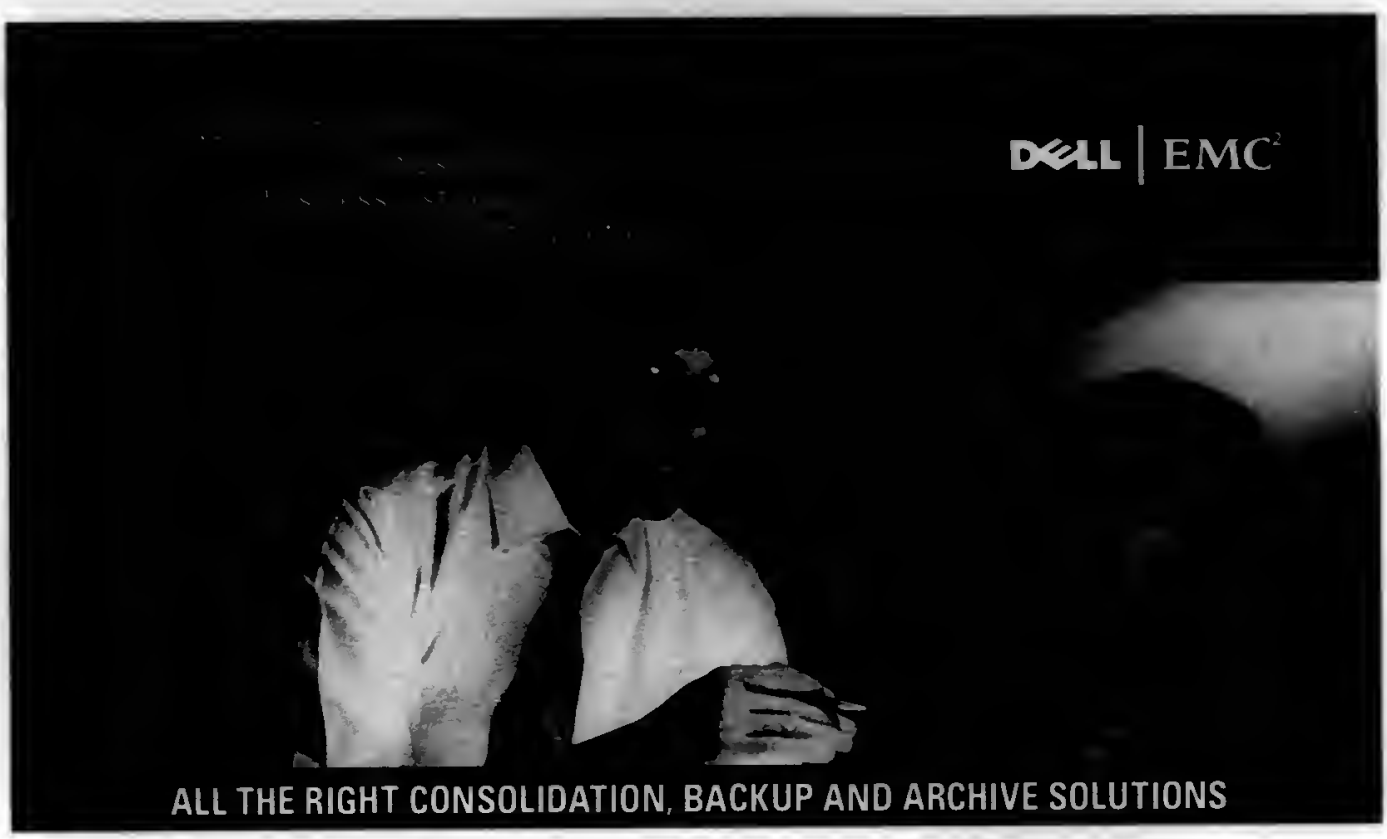

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Driving Economies Of SCALE in IT

General Motors uses its IT buying power to force vendor standards.

BY ROBERT L. MITCHELL

MANY COMPANIES have their own technology and process standards for getting vendors to conform to those standards, but few are as small as IT unless they're General Motors Corp. With its annual IT spending on the table, GM is a maker that has plenty of leverage to get what it wants from its suppliers.

[illegible] the company [illegible] to create a common technology platform for its global operations. Those efforts [illegible] billion small group of [illegible] GM's IT operations [illegible] IBM [illegible] and Wipro Ltd. [illegible] its business [illegible] to shorter five-year [illegible] agreements.

The changes at GM were driven by the need for cost savings and greater flexibility, and the need to reengineer how the company operates IT globally. GM outsources most of its IT operations and has about 2,000 employees that handle "strategic management of information technology," says CIO and Group Vice President Ralph Szygenda.

GM's push toward multisourcing is at the leading edge of a trend, says Peter Allen, partner and managing director at EPI Inc., an outsourcing research and consulting firm in Houston that advised GM on both its original EDS contract and its recent move to multisourcing.

CIOs are realizing that one service provider can't do it all, and that they need to actively manage service relationships, says Allen. "They can't defer that to an external party. They need to be the integrator of those services and engineer that relationship between the business units and the service delivery organizations."

GM's transition last time to its new service providers went smoothly. The incumbent provider even assisted the new companies during the process.

That level of cooperation happened for one reason, says Szygenda: "I'm still going to bid on $75 billion in the next five years, and they want to win that."

Szygenda first realized that the existing IT strategy wasn't meeting the company's needs in 2003, after its Brazilian e-commerce site, which generates $80,000 online car sales an

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> **It was like all of these companies were speaking different languages.**
>
> RALPH SZYGENDA, CIO
> GENERAL MOTORS CORP.

Bank of America

BANK OF AMERICA

LOCATION: Charlotte, N.C.

BUSINESS: Financial products and services

REVENUE 2005: $56.9 billion

EARNINGS 2005: $16.5 billion

MARKET CAPITALIZATION: $246.7 billion, as of Oct. 9, 2006

EMPLOYEES: 202,000

IT EMPLOYEES: 33,000*

* Estimate by TowerGroup Inc., Needham, Mass.

[illegible] IT and [illegible] skills [illegible] Wealth [illegible] Merrill [illegible] Mortgage [illegible] and client [illegible] IT portfolio [illegible] and [illegible] firms [illegible] like [illegible] people with exposure to [illegible] club to open their skills [illegible] is a good strategy," he says.

To help the bank's IT organization align more strategically with its businesses, Desoer has challenged her IT staff to learn more about the bank's external customers and their needs. "The voice of the customer is what you start with when you embark on a Six Sigma piece of work," she says.

To listen, many of Bank of America's estimated 33,000 technology associates are working alongside business colleagues in banking centers, call centers and other business units, looking for improvement opportunities.

A prime example of this occurred about a year ago when the bank's IT and business associates asked customers about the most important aspects of opening an online banking account. They found that they need to focus on the amount of time it takes to open an online account and the ability to authenticate users remotely.

The IT and business staffers applied Six Sigma techniques to reduce the number of screens it takes to open an online account from 10 to four. The online banking team also developed improved desktop authentication technologies and introduced live text chat to help facilitate new sales and provide improved customer support, according to Desoer.

Those types of improvements helped Bank of America win recognition in April 2006 in Keynote Systems Inc.'s Customer Experience Rankings as one of the top banks in offering online customer service, including first-place honors for ease of opening a new account.

Online banking has been a big success for Bank of America, Desoer says. The bank's 19.8 million online customers typically apply for more loans, make more deposits and are 30% more profitable to the bank than its other customers, she explains.

The technology group has also supported the bank's credit card division and its approach of using a "50-50 mix" of snail mail and sales pitches during customer service calls and online banking interactions to try to land new customers. If a prospective customer is applying to open a checking account online, information that's gathered about the person's credit history is mined by another software system to help generate a preapproved credit

Continued on page 28

Driving Economies Of SCALE in IT

General Motors uses its IT buying power to force vendor standards.

BY ROBERT L. MITCHELL

MANY COMPANIES have their own technology and process standards, but getting vendors to conform to those standards is no small feat — unless you're General Motors Corp. With $15 billion in IT spending on the table, the Detroit automaker has plenty of leverage to get what it wants from its suppliers.

Earlier this year, the company concluded its monolithic, 10-year outsourcing agreement with Electronic Data Systems Corp., broke up the work and awarded the bulk of $7.5 billion in new contracts to a small group of service firms that included EDS, IBM, Capgemini, Covisint and Wipro Ltd. It also transitioned to shorter, five-year agreements.

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DANIEL LEVIN

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Bank of America

units in coming years. That could be crucial if an exodus of retiring baby boomer technologists and a widely anticipated shortage of entry-level IT workers make it tougher for the bank to find and recruit people with the skills it needs, Desoer says. "We are going to be increasingly challenged to find highly qualified technology associates five to 10 years out," she adds.

Jim Eckenrode, an analyst at TowerGroup Inc. in Needham, Mass., applauds this effort. As financial institutions modernize their IT portfolios, the need to attract people with cutting-edge technology and business skills will become more acute than ever, particularly as banks find themselves competing for IT talent with "sexier" firms such as Google Inc., says Eckenrode. "Providing people with exposure to a lot of areas while keeping their skills

fresh is a good strategy," he says.

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SPECIAL REPORT

General Motors

GENERAL MOTORS

LOCATION: Detroit

BUSINESS: Auto manufacturer

REVENUE 2005: $192.6 billion

EARNINGS 2005: ($10.567 billion)

MARKET CAPITALIZATION: $17.83 billion, as of Oct. 9, 2006

EMPLOYEES: 327,000

IT EMPLOYEES: 2,000

44
PROCESS STANDARDS DEVELOPED BY GM AND ITS SUPPLIERS

[illegible] director at GM on the IT company and make all that simple," he says.

GM also demands that vendors adhere to its common technology standards. Rather than open-ended incentive contracts, GM uses fixed-price contracts for GM and suppliers alike. The way he sees it, vendors use old proprietary technologies and processes but don't build IT building blocks that [illegible] that own growth and hold [illegible] back by bogging down projects and making it very difficult to work. "Want to blame me? I want to be known as an innovative process-driven [illegible]," Szygenda says.

But few other companies have the clout to bend vendors to their will. If Dawn announced it would do it company, [illegible] not have been able to do this company and [illegible] Szygenda admits.

Nonetheless, other companies [illegible] GM's [illegible] push by [illegible] Scardino agrees. "It is going to take a deliberate, sustained focus by suppliers to make this happen," she says. "I don't think this is a done deal. The next couple of years are going to be critical."

Szygenda hopes his push for standards motivates vendors to start opening up more, but his primary agenda is GM centric. For example, he has used the company's clout to persuade Microsoft and Sun to work through differences in how their identity management products work — but GM. "We're not trying to drive standards for the industry," Szygenda says.

GM doesn't care what one of the suppliers does, as long as GM can see what they need to see, when they want to see it, in the format they want to see it, says Scardino.

Still, Szygenda thinks vendors should standardize more to reduce integration hurdles. Are they doing enough to solve other people's issues? No. It should be that these companies want to do this so that they can build innovative products and grow faster," he says.

GM still has a way to go to achieve its global vision. One area where scale hasn't helped is with its ERP implementation, which GM has consolidated down to four instances worldwide.

"We did not integrate our SAP environments as well as we should have," Szygenda says. And while GM has consolidated 10,000 information systems down to 2,500, Szygenda wants to push that down to 1,000 "or else optimize to levels that have never been seen before."

Although design and manufacturing systems have been integrated, fulfillment is a work in progress. "Right now, it's been patched together to run globally," Szygenda says.

Logistics also remains a challenge. Getting the best price on high-quality parts isn't enough. With the rising cost of energy and a global manufacturing and distribution infrastructure, GM must constantly look at the total cost of a part, including the cost of transporting to the destination where it will be used. In some cases, Szygenda says, shipping costs can exceed the purchase cost. "We're building systems that optimize logistics for that," he says.

With a presence in 128 countries, GM's biggest challenge is to solve what Szygenda calls "the logistics nightmare of globalization."

"If you could do it, you could really reinvent the company," he says. "That's what we're trying to do."

Bank of America

"The voice of the customer is what you start with when you embark on a Six Sigma piece of work."

BARBARA J. DESOER, GLOBAL TECHNOLOGY SERVICES AND FULFILLMENT EXECUTIVE, BANK OF AMERICA

[illegible] department has [illegible] building [illegible] improve their identity [illegible] instead of [illegible] Bank in person

Making Mergers Work

[illegible] Bank of [illegible] organization has [illegible] Bank One has been [illegible] April 2004 acquisition of [illegible] Financial Corp. The effort [illegible] between the [illegible] which were completed last [illegible] Combined, the [illegible] $8 billion [illegible] technology savings for Bank of America, says Desoer.

In other merger follow-ups, the IT organization plans to consolidate the bank's credit card portfolio onto the IT platforms of MBNA Corp. in Wilmington, Del.-based credit card issuer that Bank of America acquired in January. This effort, which will take 1 million staff hours to complete, is expected to help generate $850 million in after-tax cost efficiencies in 2007, Desoer says.

This conversion capability that we have in the technology group ... to be able to do these conversions flawlessly is really unparalleled in the financial services industry, if not in other industries as well," she boasts.

Although Tower Group's Ecker-Rusk believes that Charlotte, N.C.-based Wachovia Corp. also "has a well-honed merger integration strategy," he and former colleague Larry Tabb agree that Bank of America has made great inroads in this space.

Bank of America's ability to quickly choose which systems to keep and which to retire while continuing to support innovation throughout the business "has been a real strength for them, much more so than it has for [a number of other firms]," such as JP Morgan Chase, which have struggled with their systems integration efforts, says Tabb, founder and CEO of the Tabb Group in Westboro, Mass.

With the success in helping to drive credit card sales as a model, Desoer believes the IT organization can do even more to boost revenues in the bank's other businesses. Now, she explains, "we need to do that across all of our products, and that's a big opportunity to go after."

Continued from page 26

General Motors

nually, crashed. Szygenda immediately convened a meeting of the vendors involved, including Oracle Corp., AT&T Inc., Microsoft Corp., Cisco Systems Inc., EDS and IBM. "I'm listening to these companies pointing fingers, and I'm down," he says. "I'm not selling cars and trucks."

GM, which produces about 8 million vehicles a year worldwide, has been moving toward a global operational model where any car for any market can be designed and built anywhere in the world. Collaboration on a project may occur among different design groups in different locations.

"Today, if I have a computer problem, I'm taking down every design center in the world. I can't let that happen. That's what told me that this model won't work anymore," Szygenda says.

So GM has worked with its suppliers to develop 44 process standards, 29 of which affect suppliers. "It was like all of these companies were speaking different languages," Szygenda says. Now all vendors must conform to GM standards, which range from basic system requirements to processes for system verification, validation and project management. "You take all of the mundane IT processes that really aren't innovation for GM or the IT company and make all that simple," he says.

GM also demands that vendors adhere to common technology standards, whether for operational monitoring, configuration management or security compliance. Szygenda thinks such standards are a win for GM and suppliers alike. The way he sees it, vendors' use of proprietary technologies and processes for basic IT building blocks have depressed their own growth and held corporate IT back by bogging down projects in unnecessary integration work. "You're telling me asset management is an innovative process? Give me a break," Szygenda says.

But few other companies have the clout to bend vendors to their will. "If I were running a billion-dollar company, I might not have been able to get these companies to do that," Szygenda admits.

Nonetheless, other companies stand to gain from GM's standardization push by riding on its coattails, says Lorrie Scardino, an analyst at Gartner Inc., which counts GM among its clients. "If we do start to see more industrialization of IT, I think other [customers] will benefit from it," because they will demand the same treatment, she says. "GM gives you the hall pass to ask to do it."

But can GM succeed? "There is quite a bit of work in defining and applying standards in a multisourced setting," says TPI's Allen.

Scardino agrees. "It is going to take a deliberate, sustained focus by suppliers to make this happen," she says. "I don't think this is a done deal. The next couple of years are going to be critical."

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Continued from page 26

Bank of America

card offer before the checking account has even been opened, says Desoer.

Although other big banks have applied Six Sigma and other quality management techniques to improve their IT operations, "other banks don't necessarily wed the technology and the processes together" like Bank of America has, says Eckenrode.

Not everything has gone smoothly for the bank during Desoer's tenure. In May 2005, bank officials confirmed that information on roughly 60,000 of its customers had been stolen by a New Jersey-based data-theft ring in what was then believed to have been the largest U.S. banking security breach in history.

But Desoer says no damage was done to the affected customers, and the experience wasn't all negative. It helped the bank focus on security strategies, including new online authentication

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capabilities that her department has rolled out over the past year, enabling online customers to prove their identities from their computers instead of having to appear at the bank in person.

Making Mergers Work

One of the key areas where Bank of America's IT organization has contributed to the bottom line has been through its systems integration work following its April 2004 acquisition of FleetBoston Financial Corp. The effort to consolidate systems between the two banks, which was completed last fall, helped contribute to $1.85 billion in pretax operational savings for Bank of America, says Desoer.

In other merger follow-ups, the IT organization plans to combine the bank's credit card portfolio onto the IT platforms of MBNA Corp., a Wilmington, Del.-based credit card issuer that Bank of America acquired in January. This effort, which will take 1 million staff-hours to complete, is expected to help generate $850 million in after-tax cost efficiencies in 2007, Desoer says.

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Security

McAfee

INNOVATIVE

Procter & Gamble uses creative approaches to read trends and bring products to market quickly.

BY THOMAS HOFFMAN

SUPPORTING SPRAWLING business operations seamlessly across 86 countries would challenge any IT group, but at The Procter & Gamble Co., a company known for innovation, that's not enough. Since the IT organization at the 169-year-old consumer products titan was melded into its shared-services business in 2005, CIO and Global Services Officer Filippo Passerini has challenged the IT team to live up to the company's reputation for creativity.

"We started with the mind-set of 'What can we create that's unique for the business?' " says Passerini. As he sees it, P&G's IT organization should play a vital role in shaping the company's future. But given P&G's size and scope, he doesn't expect "an overnight transformation."

For the past two years, he and other top IT executives have worked with business leaders from around the company to identify market trends, anticipate business needs and create programs globally.

This includes honing P&G's business intelligence (BI) to help the company's consumer-focused businesses better anticipate market shifts. "What happened a week or a month ago [in the market] is no good," says Passerini. "We have to predict what is coming."

P&G is also investing in analytical software and predictive modeling tools to help its business leaders better understand the markets it serves.

The company's scale complicates this effort, Passerini says. IT must deliver highly customized analytic and data mining tools geared to support 300 product brands, each with unique geographic and competitive market needs, but the technologies also need to be standardized. "Our teams are developing a working marriage of these two critical demands," says Passerini.

Douglas Christopher, an analyst at Los Angeles-based brokerage Crowell, Weedon & Co., says BI and predictive modeling tools have helped P&G identify and react to market shifts more quickly, though he says it's difficult to quantify how much their use has contributed to its businesses.

Speeding to Market

But BI is just one element of the IT organization's speed-to-market strategy. P&G's IT group is also using homegrown and commercial software to help the company obtain and incorporate customer feedback and launch new products more quickly.

In the past, P&G created physical mock-ups of new products and showed them to customer focus groups early in the development cycle. Participants provided feedback on packaging, pricing and competitive products. Then the product team modified the products and retested with consumers — a process that could take many weeks.

IT has shortened this cycle using a digital workflow system that creates "a virtual mock-up," says Passerini. "If consumers give you feedback, you can change [the product] on the fly," saving weeks of development time.

P&G's IT team began developing those capabilities just over a year ago and has since applied the virtual approach to testing versions of products, including paper towels and potato chips. The concept has already delivered "big reductions" in development costs and time to market for some of P&G's new products, says Passerini.

Underlying Standards

P&G's IT team has been able to focus on business innovation because Passerini has standardized much of the technology operation. That includes integrating IT into P&G's global shared-services business and consolidating support for all global business activities onto a single instance of SAP AG's ERP software.

"By standardizing IT operations around the world, you scale for cost, flexibility and ease of use," he says. "We've created a model that allows us to operate efficient, low-cost service centers."

The efficiency model includes a 10-year, $3 billion IT outsourcing deal with Hewlett-Packard Co. that was signed in 2003. Under this agreement and later amendments, HP runs P&G's global IT infrastructure, including data center operations, desktops, networks, and some application development and maintenance. About 1,850 P&G IT workers became HP employees under the original contract.

Passerini says that shifting support to HP makes P&G's massive IT cost structure considerably more flexible. "If you can buy services like a utility, then clearly you can flex up and down as you need to," he says. "This is very, very different than if you were bound by a fixed cost structure." It also frees up the remaining IT staffers to focus on innovation and value creation, he says.

The IT innovation continues. Currently, Passerini is overseeing a "cultural revolution" within IT to ensure that the group is enmeshed in P&G's business fabric. It includes new training and career development to provide IT staffers with the skills necessary to "blend" IT with P&G's businesses, he says.

"We need to move to more of a culture of agility and responsiveness," says Passerini. "It's not about working harder, but how do we operate in a different way so that we can be more agile toward meeting emerging business needs."

Tapping Employee BRAINPOWER

IBM uses IT to solicit and test employee ideas.

BY GARY ANTHES

CIOs COMMONLY report to the chief financial officer or the CEO. But at IBM, Brian Truskowski reports to the senior vice president for internal business transformation.

Truskowski says that's because management believes IT has unique insight into the internal workings of the giant company. But he concedes that he gets a lot of help from his friends — 329,000 other IBM employees.

Many companies do "business transformation," of course, but at the mother of all technology companies (IBM was making mechanical computing machines in 1911), the concept has special importance. For decades, IBM bestrode the world of IT like a colossus, but it lost its hegemony in the 1980s and early 1990s in the face of the rise of Microsoft Corp. and other competitive forces.

Recognizing that the company had to confront 21st century market realities, IBM Chairman, President and CEO Sam Palmisano decided in 2003 that it was time to update the "basic beliefs" set forth in 1914 by IBM's first president, Thomas Watson Sr. Using intranet-based collaboration technology, IBM polled its employees for their ideas, got 50,000 responses and — assisted by IT — distilled those into just three corporate values.

A sharp focus on those values has helped IBM regain its footing, Truskowski says. Last year, the company's $91 billion in revenue put it 10th on *Fortune*'s list of the 500 largest U.S. companies.

Mind the Gaps

IBM's new values, which include putting client needs first and fostering innovation, may seem obvious, but Truskowski says the participatory, grass-roots means by which they were developed gives them credibility with employees — something they would have lacked if they'd been developed by "a senior executive sitting in Armonk."

Armed with the freshly minted corporate values, senior management charged business unit managers to find and close the gaps between those values and actual business practices. To help with that, IT rolled out in October 2004 a so-called jam — a worldwide brainstorming session that Truskowski describes as "a blog on steroids." It drew ideas from 33,000 employees, and IBM later implemented the top 35 suggestions as determined by an employee vote.

"A very obvious problem was our lack of integration in front of the customer," Truskowski says of one of the gaps identified in the jam. Indeed, the second-highest-rated idea from the jam was to overhaul the way IBM sets prices for deals that include combinations of hardware, software and services.

Previously, every brand had its own profit objectives and pricing policies. "Of course, that's crazy, because it's our ability to solve a problem — as opposed to selling piece parts — that makes us special," Truskowski says. So the company created what it calls its deal hub, a one-stop shop for sales teams working on bids that draw on offerings from multiple IBM brands and business lines. The hub helps sales teams worldwide come up with competitive bids faster, he says.

The top-rated idea from the 2004 jam was a program in which employees can anonymously rate their bosses. About 81% of eligible managers got feedback reports last year. Another idea, to simplify password use and administration, resulted in a single-sign-on plan that's now being pilot-tested.

Jams are just one of the tools that IBM, enabled by its internal IT group, developed so it can avoid the stagnation that led to its stumbles in the 1980s and 1990s. The tools are intended to tap into the company's huge store of knowledge, whether it's in a client database in Armonk, in the mind of a software engineer in India or on the desktop of an accountant in England.

IBM has employees in 74 countries and thousands of them have innovative ideas, Truskowski says. So its latest jam sought ideas on new markets, technologies and products, and for the first time, it was opened up to IBM clients and employees' families. It generated 37,000 ideas from 140,000 people in 75 countries and 67 companies.

That was quite a feat for the IT infrastructure, says Truskowski, noting that 31,000 jammers were logged on at one time on the first day. "I haven't seen much else that can handle this scale," he says. "From a CIO's perspective, it's 72 hours of hell." He says several IBM clients have asked for the technology to conduct their own jams, and IBM is providing it.

Another tool for harvesting ideas is the Technology Adoption Program, or TAP, an initiative aimed at the company's new goal of fostering innovation. "When I took this job 20 months ago, I had a lot of passionate IBMers tell me what great ideas they had about things we should be doing inside," Truskowski says. The result was TAP, an intranet system based on WebSphere and the LAMPStack suite of open-source tools.

Employees known as early adopters use an intranet-based testbed to try new tools and technologies that have been posted by employee "innovators" around the world. There are now 1,000 innovators and 36,000 early adopters using the system. "We pick off the best ideas for internal pilots, and eventually some end up in our products," Truskowski says.

For example, some enhancements in the current release of IBM's Sametime instant messaging product — such as emoticons, broadcast capability and a link into voice over IP — originated with internal users who had developed those features on an ad hoc basis.

The jamming and TAP initiatives are naturals for IBM, says Eileen Strider, a Kansas City, Mo.-based consultant in an IT organization. "IBM has a very rich history around their values," she says. "I don't know of other companies doing this as aggressively as they are. And given that IBM is a technology company, the employees are attracted to 'blogs on steroids' kinds of ideas."

Strider calls it "a good thing" that IT falls under internal business transformation in IBM's corporate structure. "The people in IT sort of know how all the pieces fit together, and they see where the issues are and where the disconnects are," she says.

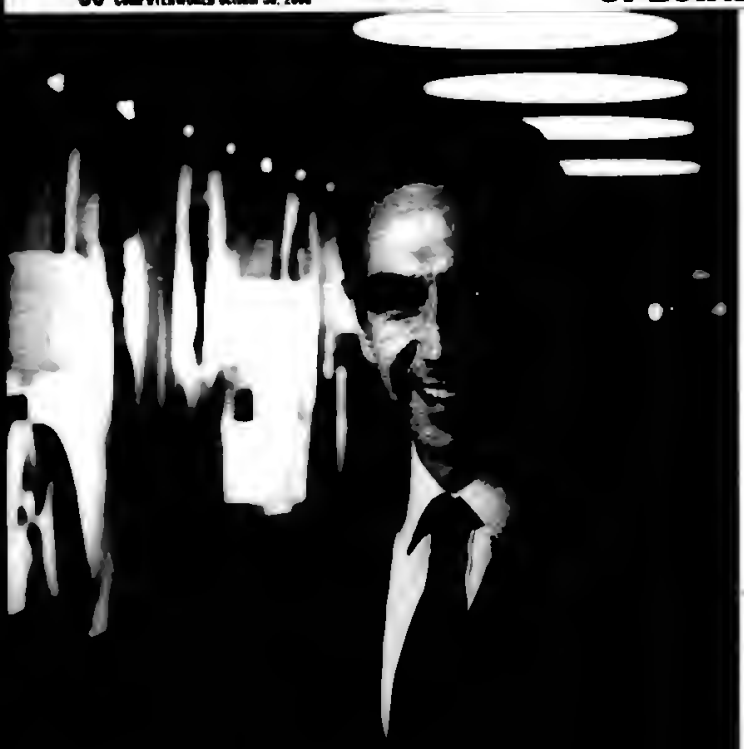
Appropriate IT

Truskowski says his biggest challenge is "supporting the hypergrowth markets in emerging countries." For example, IBM has 43,000 employees in India, second only to the number of employees it has in the U.S. "Understanding the constantly changing business models in those countries is critical," he says.

He's experimenting with a new model in which all employees are not treated equally. In the past, he says, all employees got fully loaded ThinkPads. "Now we are delivering just the right capabilities for your role — just enough IT to get your job done," he says. "That simplifies people's lives [and] my life, reduces costs and better supports those emerging business models."

Paying close attention to the IT needs of individual employees has become increasingly important, because more than half of all IBM workers have been with the company fewer than five years and 45% do not report to a traditional office every day. "Employees used to say IBM stood for 'I've been moved,'" says Truskowski. "Now I hear it means 'I'm by myself.'" One of his challenges is ensuring that all employees have access to the resources they need and are "connected," even if it's just virtually, he says.

Asked what advice he'd offer his successor, Truskowski says, "Be ready to get a lot of suggestions. There are a lot of IT experts at IBM, and probably half of them think they can do the job better than I can. And probably half of those are right."



Toward More INNOVATIVE IT

Procter & Gamble uses creative approaches to read trends and bring products to market quickly.

BY THOMAS HOFFMAN

Supporting sprawling business operations seamlessly across 80 countries would challenge any IT group, but at The Procter & Gamble Co., a company known for innovation, that's not enough. Since the IT organization at the 169-year-old consumer products titan was melded into its shared-services business in 2005, CIO and Global Services Officer Filippo Passerini has challenged the IT team to live up to the company's reputation for creativity.

"We started with the mind-set of 'What can we create that's unique for the business?'" says Passerini. As he sees it, P&G's IT organization should play a vital role in shaping the company's future. But given P&G's size and scope, he doesn't expect "an overnight transformation."

For the past two years, he and other top IT executives have worked with business leaders from around the company to identify market trends, anticipate business needs and create programs globally.

This includes honing P&G's business intelligence (BI) to help the company's consumer-focused businesses better anticipate market shifts. "What happened a week or a month ago [in the market] is no good," says Passerini. "We have to predict what is coming."

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The company's scale complicates this effort, Passerini says. IT must deliver highly customized analytic and data mining tools geared to support 300 product brands, each with unique geographic and competitive market needs, but the technologies also need to be standardized. "Our teams are developing a working marriage of these two critical demands," says Passerini.

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The Procter & Gamble Co.

LOCATION Cincinnati

BUSINESS Consumer goods

REVENUE 2006 $68.22 billion, as of June 30, 2006

EARNINGS 2006 $8.68 billion, as of June 30, 2006

MARKET CAPITALIZATION $199.55 billion, as of Oct. 9, 2006

EMPLOYEES 140,000

IT EMPLOYEES 2,300

Tapping Employee BRAINPOWER

IBM uses IT to solicit and test employee ideas.

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IBM

LOCATION Armonk, N.Y.

BUSINESS Technology systems and services

REVENUE 2005 $91.1 billion

EARNINGS 2005 $8 billion

MARKET CAPITALIZATION $127.83 billion, as of Oct. 9, 2006

EMPLOYEES 329,000

IT EMPLOYEES 2,500

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The top-rated idea from the 2004 jam was a program in which employees can anonymously rate their bosses. About 81% of eligible managers got feedback reports last year. Another idea, to simplify password use and administration, resulted in a single-sign-on plan that's now being pilot-tested.

Jams are just one of the tools that IBM, enabled by its internal IT group, developed so it can avoid the stagnation that led to its stumbles in the 1980s and 1990s. The tools are intended to tap into the company's huge store of knowledge, whether it's in a client database in Armonk, in the mind of a software engineer in India or on the desktop of an accountant in England.

IBM has employees in 74 countries and thousands of them have innovative ideas, Truskowski says. So its latest jam sought ideas on new markets, technologies and products, and for the first time, it was opened up to IBM clients and employees' families. It generated 37,000 ideas from 140,000 people in 75 countries and 67 companies.

That was quite a feat for the IT infrastructure, says Truskowski, noting that 31,000 jammers were logged on at one time on the first day. "I haven't seen much else that can handle this scale," he says. "From a CIO's perspective, it's 72 hours of hell." He says several IBM clients have asked for the technology to conduct their own jams, and IBM is providing it.

"When I took this job 20 months ago, I had a lot of passionate IBMers tell me what great ideas they had about things we should be doing inside."

BRIAN TRUSKOWSKI, CIO, IBM

Another tool for harvesting ideas is the Technology Adoption Program, or TAP, an initiative aimed at the company's new goal of fostering innovation. "When I took this job 20 months ago, I had a lot of passionate IBMers tell me what great ideas they had about things we should be doing inside," Truskowski says. The result was TAP, an intranet system based on WebSphere and the LAMPStack suite of open-source tools.

Employees known as early adopters use an intranet-based testbed to try new tools and technologies that have been posted by employee "innovators" around the world. There are now 1,000 innovators and 36,000 early adopters using the system. "We pick off the best ideas for internal pilots, and eventually some end up in our products," Truskowski says.

For example, some enhancements in the current release of IBM's Sametime instant messaging product — such as emoticons, broadcast capability and a link into voice over IP — originated with internal users who had developed those features on an ad hoc basis.

The jamming and TAP initiatives are naturals for IBM, says Eileen Strider, a Kansas City, Mo.-based consultant in an IT organization. "IBM has a very rich history around their values," she says. "I don't know of other companies doing this as aggressively as they are. And given that IBM is a technology company, the employees are attracted to 'blogs on steroids' kinds of ideas."

Strider calls it "a good thing" that IT falls under internal business transformation in IBM's corporate structure. "The people in IT sort of know how all the pieces fit together, and they see where the issues are and where the disconnects are," she says.

Appropriate IT

Truskowski says his biggest challenge is "supporting the hypergrowth markets in emerging countries." For example, IBM has 43,000 employees in India, second only to the number of employees it has in the U.S. "Understanding the constantly changing business models in those countries is critical," he says.

He's experimenting with a new model in which all employees are not treated equally. In the past, he says, all employees got fully loaded ThinkPads. "Now we are delivering just the right capabilities for your role — just enough IT to get your job done," he says. "That simplifies people's lives [and] my life, reduces costs and better supports those emerging business models."

Paying close attention to the IT needs of individual employees has become increasingly important, because more than half of all IBM workers have been with the company fewer than five years and 45% do not report to a traditional office every day. "Employees used to say IBM stood for 'I've been moved,'" says Truskowski. "Now I hear it means 'I'm by myself.'" One of his challenges is ensuring that all employees have access to the resources they need and are "connected," even if it's just virtually, he says.

Asked what advice he'd offer his successor, Truskowski says, "Be ready to get a lot of suggestions. There are a lot of IT experts at IBM, and probably half of them think they can do the job better than I can. And probably half of those are right." ▸

STANDARD, Not Sexy

Common systems are the rule at ConocoPhillips.

BY JULIA KING

GROWTH IS the name of the game at ConocoPhillips. In the past 20 months alone, the energy behemoth has embarked on a $4 billion-plus program to expand its U.S. refining operations; acquired Burlington Resources, a major U.S. gas explorer and producer; increased its ownership stake in Duke Energy Field Services, one of the country's largest gas processors and marketers; and launched a large liquefied natural gas project that supplies natural gas from Qatar to the U.S.

And that all comes on the heels of a five-year diet of acquisitions and mergers, beginning with Phillips Petroleum Co.'s 2001 acquisition of Tosco Corp., one of the world's largest oil refiners.

Today — and going forward — the main challenge for IT at ConocoPhillips is building and operating a gigantic yet standardized technology infrastructure that can integrate these and other new acquisitions and business projects quickly and cost-effectively.

"It's not real sexy," acknowledges Marty Schoenthaler, general manager of information services at the $183 billion company. "But scale is what is so key in our industry. For almost four years [since Conoco and Phillips merged in 2002], we have been working on driving integration and converging systems." The ultimate goal, he says, is to create a technology foundation that can be used worldwide to support a comprehensive set of global business processes.

Global Standards

The ticket is standardization — make that hyperstandardization. Today, all of ConocoPhillips runs on a single instance of SAP enterprise software. The company has also standardized on Dell hardware and Microsoft Office software and tools. That's a long way from the dozens of different e-mail and desktop systems that existed across the two individual companies in 2002.

"As we go through acquisitions and otherwise grow as a company, it makes it that much easier to build off that foundation," Schoenthaler notes. "When we acquired Burlington earlier this year, we were able to drop it right into our [global SAP] system."

ConocoPhillips is in the process of further standardization, this time focusing on the creation and adoption of global business processes. A recent success story is the ASAP (for "aligning systems and processes") program in the company's European downstream business, which deals with the refining, marketing and transportation of products. The program encompasses 10

"It's not real sexy, but scale is what is so key in our industry."

MARTY SCHOENTHALER, GENERAL MANAGER OF INFORMATION SERVICES, CONOCOPHILLIPS

business units in 15 countries.

"The whole purpose of the program is to converge as many common business processes and their supporting IT systems [as possible] across all of these European businesses," Schoenthaler explains. "We want an efficient, low-cost operating environment."

It worked. The European downstream business's retail marketing group went from 14 standard processes with 42 variations based on country and location to 20 processes in all. Those processes are supported by 22 IT systems, down from 35.

"Now we have common processes in place for light oil pricing and retail site surveys, plus standard information interfaces for [all] sales," Schoenthaler says. "What that all means is we have much better management of all of our stock categories. We can get a much better global idea of the business, and we can see one overall picture of our business in Europe and Asia."

Despite its global presence, which

means relatively easy access to offshore IT skills, IT at ConocoPhillips is strictly an in-house organization. The company employs 1,600 permanent IT staffers and 400 contractors. About half of the permanent staffers are devoted to centralized, or "leveraged," IT services, such as desktop support, data center operations, and major enterprise application development and support services. The other half are at business units worldwide.

"We're trying to separate out as much leveraged service delivery [as we can] because we fully charge out all of those costs," Schoenthaler explains. Chargebacks also help boost awareness of costs and help build support in the business units for global processes, he adds. Nevertheless, there remain some very specific services, such as geodata management, that have to be performed at individual locations.

But even in those areas, ConocoPhillips is driving standardization by adopting common software tools that geoscientists anywhere can use.

Challenges Remain

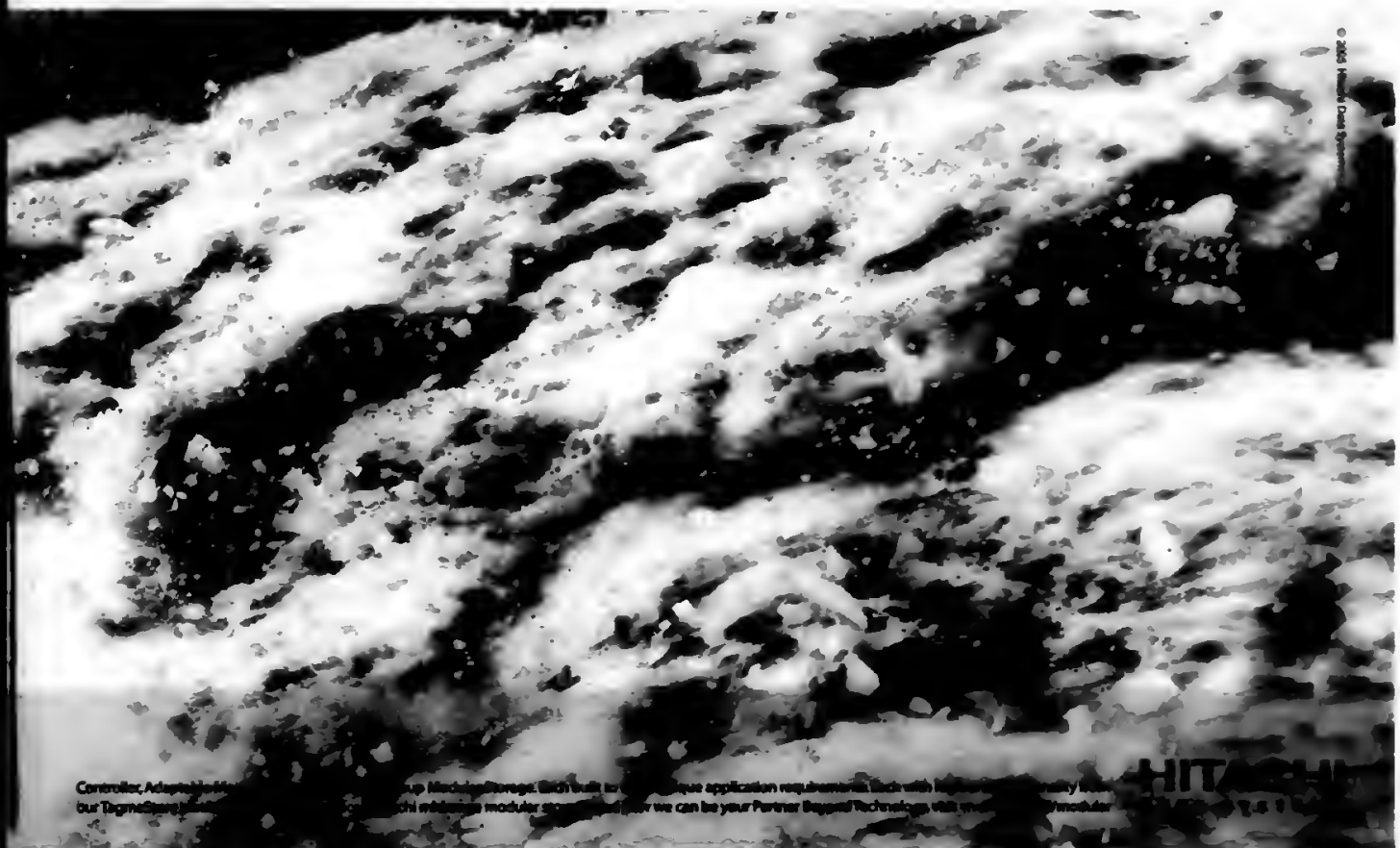
The downside of ConocoPhillips' post-merger size is that "not every one of our processes scales to the level we need it to," Schoenthaler says. Geodata management is still handled in a decentralized way, with individual business units processing their own data. Application development processes also don't scale well, he says, adding, "Our development processes aren't consistent."

Conoco has also faced a major challenge finding both IT and business professionals with the mix of skills it needs. "We can't get enough resources — business people especially — to do projects. We'd be doing a lot more projects if we had the resources," Schoenthaler says.

He declines to give any specifics about ConocoPhillips' current IT budget, except to say that it "was brought down significantly from when we were Conoco and Phillips."

But considering that ConocoPhillips made $5 billion in profit last quarter, "no matter what they're spending on IT, it's a rounding error comparatively," says Fadel Gheit, an analyst at Oppenheimer & Co. in New York.

The same goes for all the big oil companies, Gheit says: "Oil companies have no control over pricing. Only the market does. So they need every tool in the toolbox to operate efficiently. That requires being the lowest-cost producer, which requires the best information." ●



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CONOCOPHILLIPS

LOCATION: Houston

BUSINESS: Petroleum products

REVENUE 2005: $183 billion

EARNINGS 2005: $13 billion

MARKET CAPITALIZATION: $94.69 billion, as of Oct. 9, 2006

EMPLOYEES: 35,600

IT EMPLOYEES: 2,000

"We're trying to separate out as much leveraged service delivery [as we can] because we fully charge out all of those costs," Schoenthaler explains. Chargebacks also help boost awareness of costs and help build support in the business units for global processes, he adds. Nevertheless, there remain some very specific services, such as geodata management, that have to be performed at individual locations.

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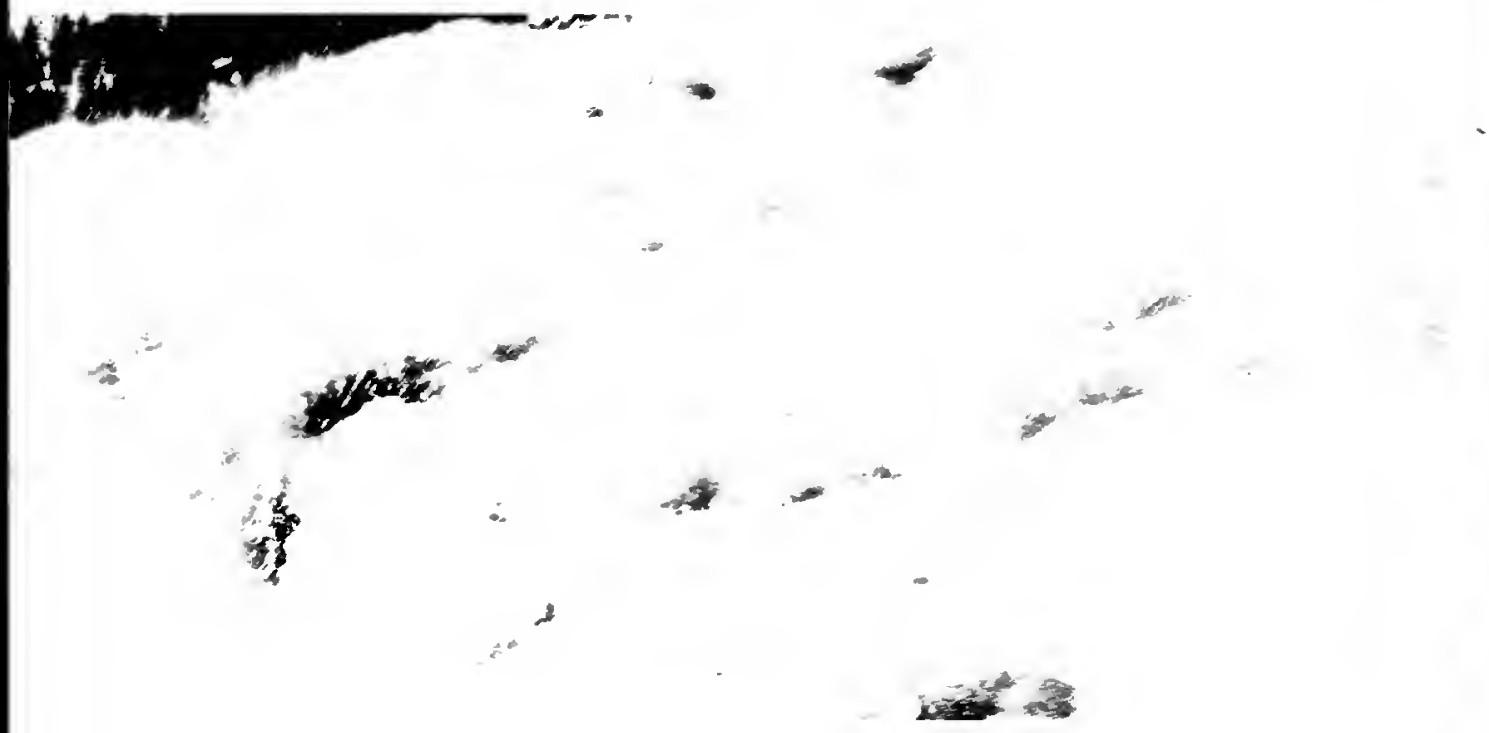

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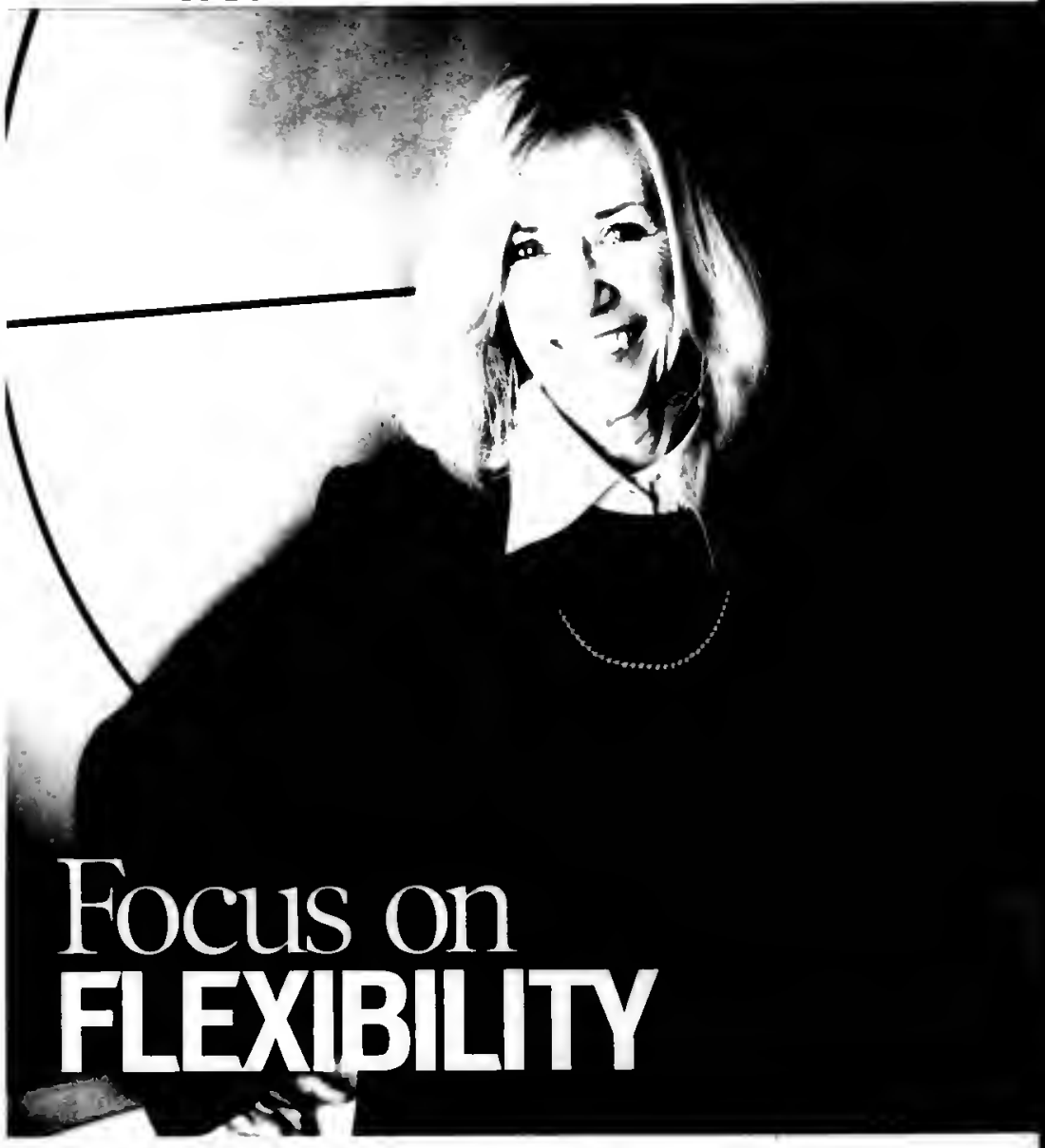

Focus on FLEXIBILITY

Exxon Mobil's standards translate into agility for its global business units.

BY ROBERT L. MITCHELL

For Exxon Mobil Corp., which has a presence in 200 countries, technology and business process standardization are the keys to success. "We already [illegible] a suite of systems that [illegible] best practices. Technology is a [illegible]," says Patricia C. Hewlett, vice president of global [illegible] technology at Exxon Mobil [illegible] the world's largest energy [illegible].

Exxon Mobil's IT efforts differ from [illegible] competitors in the extent [illegible] focuses on standardization [illegible] economies of scale," [illegible] Hewlett. That focus allows [illegible] to do more with less and [illegible] when responding to [illegible] business needs, she says.

[illegible] strategy has clearly benefited [illegible] Texas-based company's upstream business unit, which focuses on oil exploration, extraction and transportation, Hewlett says. A common platform, dubbed the "upstream suitcase," integrates everything Exxon Mobil needs to move into a new market, including the ERP system and tools that monitor equipment, track personnel and manage work permits.

"It's a suite of standard computing applications we can use anywhere in the world," Hewlett says. Last year, Exxon Mobil used the suitcase to quickly set up new operations in Russia and Angola.

EXXON MOBIL CORP.

LOCATION: Irving, Texas

BUSINESS: Petroleum products

REVENUE 2005: $370.68 billion

EARNINGS 2005: $36.13 billion

MARKET CAPITALIZATION $395.63 billion, as of Oct. 9, 2006

EMPLOYEES: 84,000

IT EMPLOYEES: 5,500

That commitment to standardization played a critical role during Exxon's merger with Mobil, allowing the combined companies to reduce staffing by about 15,000. "Some of that couldn't have happened if we hadn't standardized the IT suite," Hewlett says.

ERP Effort

The corporation's most ambitious recent project has been its tenacious pursuit of a common global ERP platform for its chemical business. That initiative, which eventually consolidated business unit operations onto a single implementation of SAP software, was able to overcome substantial technical hurdles and integration complexities through a "brute force effort" that involved hammering away until it succeeded, says Dan Miklovic, a Gartner Inc. analyst. The result is one of the world's largest SAP implementations. "They're doing a good job of standardizing on a large chunk of SAP. Other companies are not doing that well," Miklovic says.

"It helped improve the quality and timeliness of data, and we've gotten even greater benefits than forecast," Hewlett says.

But the move also represented a trade-off. "By pushing so much SAP,

Exxon Mobil, page 38

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Exxon Mobil's IT efforts differ from those of its competitors in the extent to which it focuses on standardization and achieving economies of scale, according to Hewlett. That focus allows the company to do more with less and be more agile when responding to changing business needs, she says.

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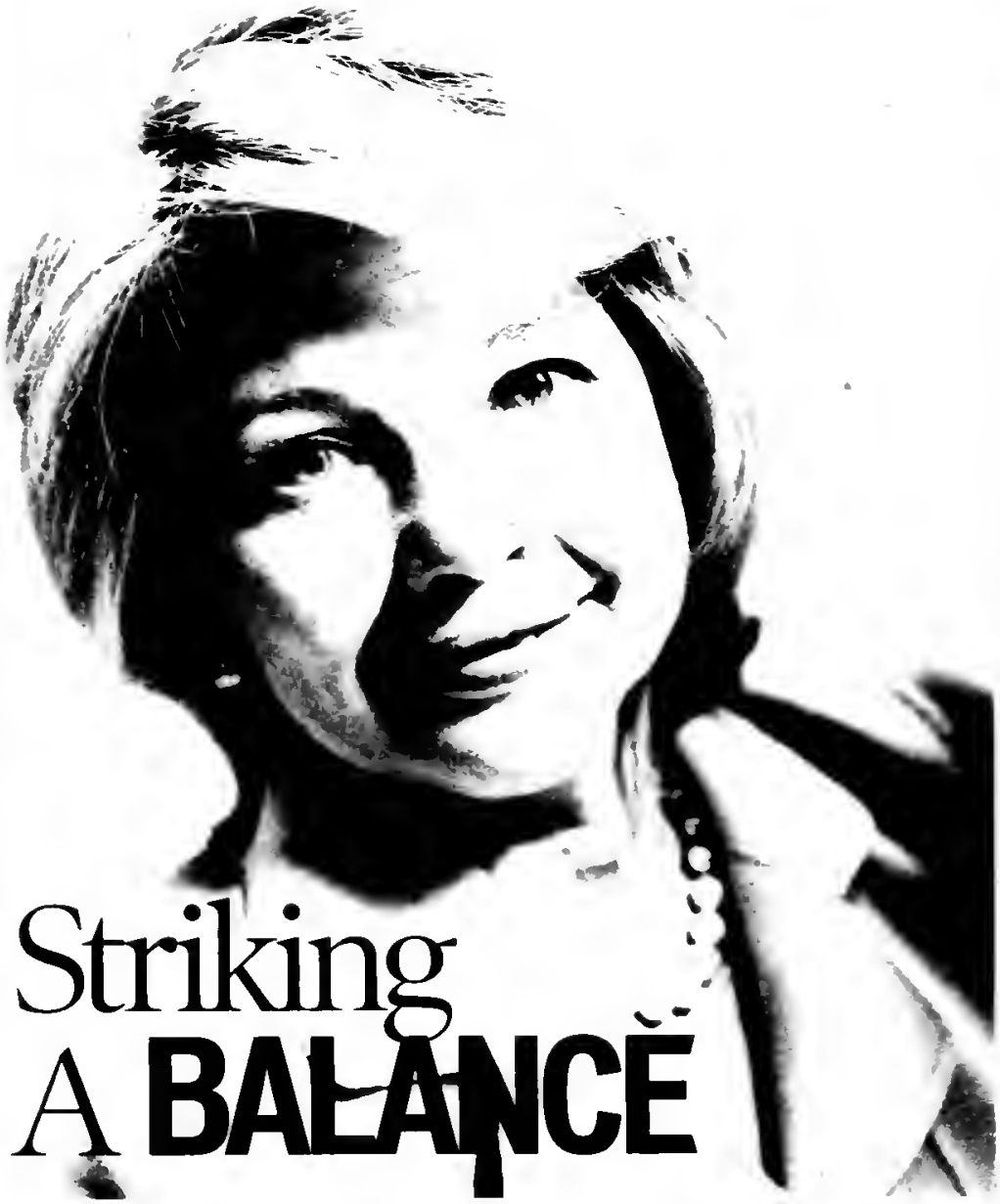

Striking A BALANCE

Pfizer needs to support product innovation while cutting costs.

BY JULIA KING

In the past dozen years, Pfizer Inc. has ballooned from a $13 billion operation to a $200 billion company of staggering complexity, thanks to large stock-for-stock acquisitions of other companies, including Warner-Lambert Co. and Pharmacia Corp.

The ongoing challenge for the pharmaceutical giant is streamlining operations, processes and technology to stay nimble and innovative in an industry where companies live and die by the discoveries they make and the patents they hold.

At the same time, Pfizer is under pressure to keep a lid on costs. In the past five years, the company has lost about $140 billion in value while pursuing its growth strategy. Also, in June, the patent expired on one of its top-selling drugs, the antidepressant Zoloft — which contributed more than $3 billion to Pfizer's top line in 2004.

In a nutshell, to offset its revenue dips as older drugs come off patent and new ones are developed, Pfizer needs to keep costs down while simultaneously ensuring a steady stream of new products and revenue growth.

For IT, it all adds up to striking a balance, says Vita Cassese, vice president of global business technology. "There are two opposing challenges," she explains. "We need to drive a level of consistency and standardization to operate effectively, while still fostering innovation."

Moreover, Cassese says the scale and complexity of Pfizer's business make for a huge diversity of informational needs across the company. "In many ways, it demands different approaches to data demand and information management," she says. "That makes for very big challenges, because we also need to drive down the costs of managing this information."

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Course Correction

To get there, Pfizer has a two-pronged IT strategy. It has centralized enterprise IT "plumbing" services, such as data center, networking, help desk and infrastructure support operations, into a corporate shared-services organization. But it also has collocated IT employees with business people across virtually all of its operations around

Pfizer, page 38

PFIZER INC.

LOCATION: New York

BUSINESS: Pharmaceuticals

REVENUE 2005: $51.3 billion

EARNINGS 2005: $8 billion

MARKET CAPITALIZATION: $201.6 billion, as of Oct. 9, 2006

EMPLOYEES: 106,000

IT EMPLOYEES: Not available

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Not available

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10:00am to 10:15am	**Refreshment and Networking Break**
10:15am to 10:50am	**Application Performance Assurance Case Studies: It Pays to be Predictable** Andrew Hittle, Vice President, Quality Assurance Solutions, Compuware
10:50am to 11:25am	**Application Performance: An End-User Case Study**
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Exxon Mobil

they are in fact giving up some best-of-breed functionality," which has allowed some of Exxon Mobil's competitors to adopt more cutting-edge capabilities, Miklovic says. "By using tools that are not as good as best of breed, at the very least they have to spend more and work harder to do as well as competitors that use better tools." For Hewlett, however, establishing a set of common global processes is paramount, and SAP provided a means to that end.

Despite its fixation on standards, Exxon Mobil does support the use of leading-edge, best-of-breed technology when the business value is high and the technology can be narrowly deployed.

"There's the constant balance you have between sustaining these standards that give you the flexibilities and economies of scale [while] also being responsive to the needs of the different business lines," Hewlett says. "Making the trade-offs on when it is appropriate to make an exception to the standard — and why — is a challenge."

For example, scientists use specialized research software to develop catalysts that help break down crude oil for use in creating plastics and other products. But for products that are widely deployed, Exxon Mobil sticks with the most mature, scalable technologies. "You can't afford to be out there pulling down the productivity of 100,000 people while you mature the product," Hewlett says.

She says Exxon Mobil wants to deal with its technology suppliers around the world in a consistent way, but its global process standardization puts it ahead of most of them. "Nitty-gritty details," such as consistent order processes from one country to another, are often lacking, Hewlett says. "It's hard to find truly global vendors that deal with our scale," she adds.

The Price of Standards

In some cases, Exxon Mobil's demand for scalability and standards has meant staying on the sidelines rather than adopting technology that doesn't measure up. That was the case with identity management. Exxon Mobil requires a role-based approach that can scale to support 84,000 employees in about 200 countries. "We were frankly disappointed by the inability of the IT industry to have a full solution set that would meet our requirements," Hewlett says.

Exxon Mobil has shelved the project for now, and Miklovic thinks that was the right move. "The scope of what they were trying to do went way beyond what the technology is capable of at this stage," he says.

Exxon Mobil's IT budget represents less than 1% of the company's overall revenue — about on par with others in the energy sector, says Miklovic. Organizationally, Exxon's IT staff is split among its business units: the upstream and chemical businesses and its downstream operations, which include oil refining. About 20% of all IT personnel

work within those business units, with IT representatives residing on each unit's leadership team. The remaining 80% of the IT staffers work for the corporate entity, where they focus on delivering IT and services on a global scale.

"We have a global infrastructure organization; a global application support structure; a global approach to planning, where it's corporatewide; and a global project center of excellence," Hewlett says. This structure allows for some agility and the adoption of leading-edge technology within local business units while maintaining the company's commitment to global standards. "We can get the economies of scale, [and] we can enforce the standards," she says.

Exxon Mobil doesn't outsource a significant portion of its IT operations, but its global reach has enabled it to put its own spin on the concept of offshoring. In some low-cost areas, it has expanded the use of IT staffers who support day-to-day computing activities, such as help desk and applications, to also support users in other higher-cost locations. "In essence, we have a captive offshoring center that helps us to do our IT work," Hewlett says.

With more than 2 petabytes of operational data now online, Hewlett's next challenge is applying knowledge management techniques to make the best use of that information. The company stores detailed data gathered in areas such as process operations in refineries and production facility operations.

"That's millions of characters of information that years ago we couldn't afford to collect," says Hewlett. "There's a real opportunity to help business professionals make sense of all of this data."

The first order of business has been to review and organize it. "We were quite surprised to see just how much of the data was either unused or duplicated somewhere else," Hewlett says. She estimates that consolidation can shrink the amount of storage needed by half, which would save money. After doing that, the company plans to better index and archive the data and make it more searchable.

The ultimate payoff from standardization isn't just cost savings from achieving economies of scale, Hewlett says. The efficiencies made possible by adopting consistent platforms and business processes add flexibility to the business by allowing rapid movement into new markets and enabling Exxon Mobil to adjust workloads among offices worldwide, she says, adding, "We think it offers a competitive advantage."

Continued from page 36

Pfizer

the world. It is these IT staffers who "provide the basic systems that drive the company's top-level growth and the systems needed for re-engineering business processes," Cassese explains.

Pfizer is something of a pioneer in cross-breeding technology and business staffs, having collocated the two for at least the past decade. Every Pfizer corporate function, from finance to marketing, has at least one staffer from the business technology group physically working within the unit.

"It is what keeps IT so closely aligned with the overall business strategy," Cassese says. "We've always had a model to have IT tightly linked to the business. As a smaller company, that strategy was very effective. But now, as a much larger company, we need to correct course a little bit."

"IT still needs to be close to the business and have a deep, deep understanding of the business, but we also need a deeper level of discipline around how we deploy technology" to keep costs under control, she explains.

One change Pfizer is making is in the way it manages data. Until recently, individual business units had tended to manage their own information, but now there's a trend toward technology and information rationalization.

"Pfizer has some real goals on driving costs out of systems, from our IT infrastructure to the everyday operation of systems," Cassese says.

Last year, for example, the company launched a project to consolidate more than 30 document management systems to streamline regulatory submissions and cut costs. The consolidation spans operations in 26 countries and various corporate groups, such as research and marketing, to create a single flow of information.

Cutting Costs and Complexity

There is also an ongoing effort under way to standardize and narrow technology choices "in places where it doesn't matter so much," such as desktops, Cassese says.

"Over the last three years, we've standardized everyone in the company on one kind of desktop. It hasn't made a big difference in anybody's life, but there was great consternation when we decided to do it," she notes.

Where that effort has made a major difference, however, is in IT costs and complexity. "It has simplified our environment. Now, we don't have to test everything on seven or 20 different machines," she says.

Cutting costs and increasing efficiencies is especially important to Pfizer now, during the time between the expiration of patents on some of its more profitable drugs and the introduction of drugs now being developed, says Les Funtleyder, a health care strategist at Miller Tabak & Co. in New York.

"Pfizer has a huge sales force, but Zoloft, Zithromax and Neurontin — all multibillion-dollar drugs for the company — have come off patent in the last 18 months," says Funtleyder. That means less sales revenue, and the way to squeeze more out of less is better use of IT. That would lead to lower selling, general and administrative (SG&A) expenses. "And the lower the SG&A," he says, "the better."

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Fraud

that the company's antifraud efforts, which include a security team that uses special software to monitor for anomalous activity such as users logging in from unusual IP addresses, failed to detect the stock scams quickly enough.

As a result, TD Ameritrade has installed new technology and reconfigured its existing tools to monitor for pump-and-dump activity, Bartlett said. "We could identify it [before], but certainly not to the sophistication of what we can do now," he added. He declined to discuss the new capabilities in detail or disclose which security tools his firm uses to guard against online fraud.

ETrade has also beefed up its online security in response to the recent attacks, CEO Mitchell Caplan said during an Oct. 18 conference call on the company's third-quarter financial results. Caplan said ETrade had cut the amount of fraudulent activity to "almost zero" over the previous three weeks as a result of the security changes.

BARTLETT says TD Ameritrade didn't spot the fraudulent trading but has now upgraded its capabilities

The inability of ETrade and TD Ameritrade to promptly detect the hackers is hitting them in their pocketbooks. Although the money in brokerage accounts isn't insured, both firms guarantee customers against losses caused by fraud.

ETrade officials said during the earnings call that the company had spent $18 million to compensate customers for losses from the attacks. Last week, TD Ameritrade disclosed during a conference call on its fourth-quarter results that it had reimbursed a total of $4 million to its customers.

To help it monitor accounts for unusual behavior, ETrade uses antifraud software developed by Cyota Inc., which is now a part of EMC Corp.'s RSA Security Inc. division.

Since February 2005, ETrade has also offered its customers a two-factor authentication option based on RSA's SecurID token technology. The tokens generate new six-digit codes every 60 seconds. Customers must enter the codes along with their usernames and passwords when logging in, according to an ETrade spokeswoman.

She declined to say how many ETrade customers are using the RSA tokens and whether the hackers accessed any accounts guarded by the SecurID technology.

Persistent Challenges

Ryan Sherstobitoff, chief technology officer at security tools vendor Panda Software International SL, said skillful hackers can trick software such as Cyota's, which relies in part on checking whether users are logging in from their usual IP addresses. And tokens are ineffective against identity thieves who use names and Social Security numbers to create new bank or stock-trading accounts, he said.

"We can protect against certain scenarios now, but there are certain ones we can't protect well against at all," Sherstobitoff said.

In a report released last month, Javelin Strategy & Research in Pleasanton, Calif., ranked ETrade 17th out of 24 financial institutions on efforts to protect consumers from identity theft. Javelin didn't rank TD Ameritrade as part of its security scorecard, which primarily involved banks.

Identity theft in all its forms resulted in an estimated $56.6 billion in losses in the U.S. last year, according to Javelin, with one in 25 people being affected by it. "Fighting identity theft is a cat-and-mouse game — there's always room for improvement," said Javelin President James Van Dyke.

Bartlett said new antifraud tools on the horizon could help bolster corporate defenses. "It's been a lot of back and forth between vendors and the bad guys," he said. "But I've recently seen a lot of products in beta that should leapfrog [hacking tools] and keep vendors ahead in the arms race." ▶

Continued from page 1

Energy

scientist at Lawrence Berkeley National Laboratory. He has advised the EPA on energy issues and was tapped by the agency to head the server protocol effort.

One large customer that is already asking for standardized energy-efficiency data from vendors is Lehman Brothers Inc. "From an end-user standpoint, a standardized method of establishing and reporting server energy consumption is essential," said Rick Salmon, vice president of the mission-critical facilities group at the New York-based financial services firm.

Salmon said a standardized benchmark would "prevent vendors from reporting favorable efficiency ratings based upon unrealistic power-demand loads." A common energy-efficiency protocol should also promote vendor competition and spur efficiency innovations, Salmon said, adding that even a small reduction in power utilization by servers can have a significant impact on data center costs.

Small Changes Add Up

Rackspace Ltd., a managed hosting services provider in San Antonio, operates more than 20,000 servers. Paul Froutan, the company's vice president of research and development, conducts his own tests on server energy use and estimates that there may be as much as a 30% variation among similar systems.

But, like Salmon, Froutan said that even slight improvements in energy efficiency could be a boon for corporate electricity budgets.

For instance, if each of Rackspace's servers used about 200 watts of energy per hour and that consumption level was reduced by 5 watts, or 2.5%, that would save 100 kilowatts per hour — enough to power 500 servers, Froutan said.

Bill Leo, CIO at Mercer Delta Consulting LLC in New York, said he has doubts about the willingness of server vendors to challenge one another over energy efficiency in their sales efforts. "Unless they are going to be able to really compete with each other in this area, I don't know if [the protocol] is going to have a whole lot of value," Leo said.

In addition to the EPA, server vendors such as IBM, Dell Inc., Hewlett-Packard Co. and Sun Microsystems Inc. are involved in the effort to develop the protocol, which began earlier this year.

Christian Belady, a distinguished technologist at HP who has been participating in the protocol work, said he sees the adoption of a uniform energy-efficiency measurement as inevitable because of user concerns about power costs. "Ultimately," he said, "we believe it's going to be something that we have to do." ▶

SPENDING SHIFT

Q&A: The increasing cost of running data centers will change the economics of IT, says Uptime Institute Executive Director Ken Brill. **Page 15**

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Let It Slip

MICROSOFT has delayed Windows Vista again. It's just a little slip this time, though. On Oct. 13, Vista developers reportedly discovered serious bugs — bugs bad enough that they not only caused crashes but required complete reinstallation of the operating system. The bugs were fixed within a week, but because Vista was scheduled for its release to manufacturing on Oct. 25, the fixes and, presumably, frantic testing bumped that release date by two weeks. Microsoft now says that despite the delay, Vista will still ship for businesses in November and for home users in January.

But it shouldn't. Microsoft should let Vista slip one more time.

Look, this first version of Vista is the one that will go on an awful lot of retail PCs. For corporate IT, it's just the version we'll begin testing, but for the folks at home, it's the one they'll be booting up for regular use starting in January.

So millions of the least sophisticated users will be connecting to the Internet with a version of Vista that still had showstopping bugs just days before it was frozen. That's not exactly a promising scenario.

And for what? Vista is already too late to show up under anyone's Christmas tree. Whatever damage Microsoft has caused to fourth-quarter PC sales is done. Rushing Vista out to meet an arbitrary January deadline makes no sense.

Yes, after all these years and all these delays, no doubt everyone at Microsoft just wants to declare victory and get Vista out the door.

But bug fixes usually create more bugs. If, after all that widespread beta testing, the version of Vista that was originally supposed to ship to PC makers still had such serious problems, how can anyone honestly believe that the fixed version will be clean after nothing more than a couple weeks of internal regression tests?

What Vista's developers are doing right now isn't polishing the chrome. They're testing the cures for showstoppers. That's well worth giving them a little more time.

And while developers are doing that final hammering on Vista 1.0, Microsoft could use the time to straighten out other last-minute Vista bumps.

Some of them are minor, like the all-over-the-map plans of PC vendors for including coupons for Vista (or not) with Vista-capable PCs they sell before Vista is ready. Consumers won't be happy when Hewlett-Packard delivers Vista upgrades free while Dell charges $45. Yeah, that'll sure gin up warm, fuzzy feelings about Vista. And that's before users try to upgrade to Vista over their installed applications without any help.

The biggest problem, though, is the collapse of Microsoft's relationships with security vendors.

At this point, security companies are actively looking for ways to hack into Vista's kernel. No, they're not searching for vulnerabilities so Microsoft can repair them. They're searching for ways around Vista's PatchGuard, which blocks much security software from working.

Microsoft says the software should use its new security programming interfaces. Some security vendors, including Symantec and McAfee, complain that the interfaces don't let them use their best technology. Others, such as Authentium, have reacted by hacking through PatchGuard.

This is ugly. When it comes to Vista's security, Microsoft needs all the help it can get. That means enabling the best technology from its security partners — and never giving them a reason to hide what they know about Vista vulnerabilities from Microsoft. Instead, the situation is just short of a shooting war. It's a mess that needs attention and time to clean up.

Take that time, Microsoft.

Corporate IT won't care; we'll just start testing Vista a little later. Consumers won't know, and they'll be better off with a consistent upgrade policy and the best security available. And with the holiday opportunity past, PC vendors won't be in any rush. We can all wait for a Vista that's not rushed out the door.

Let it slip. ▸

IBM

_INFRASTRUCTURE LOG

_DAY 27: These compliance regulations are killing us! Audits. Inconsistencies. Processes. Time. Money. I feel like I'm being chased by regulators.

_Oh, wait. I am being chased by regulators. Run!!!!!

_DAY 28: I've got it: IBM Tivoli middleware. It automates system administration to standardize compliance policies. It centralizes processes to minimize the headaches of new and ever-changing regulations. And it helps pinpoint security issues before they become problems and maintains business integrity.

_Gil is bummed we had to ditch the high-carb diet.

Tivoli

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_INFRASTRUCTURE LOG

_DAY 33: Our information is out of control. It's siloed. It's unmanageable. People can't access the latest information to make decisions. Gil's had enough. He's decided to give everyone access to everything all at once.

_Monitors now outnumber humans 18 to 1.

_DAY 36: It's clear to me now. We need an IBM Information On Demand middleware solution. Information will be liberated from the silos — available when we need it, whatever the format. It will be accurate and in context. Since it's based on open standards and a service oriented architecture, we can handle whatever the future brings. Now we can make smarter decisions and deliver real business value.

_Access is a beautiful thing.

Information Management

See innovative IBM Info Management solutions in action:
IBM.COM/**TAKEBACKCONTROL**/INFO

IBM.

_INFRASTRUCTURE LOG

_DAY 44: This lack of productivity is out af cantrol. What we're using isn't working. Gil's had enough. He moved everyone inta one cubicle. A "callaboration" cubicle. We need a better idea.

_DAY 46: I'm going with IBM Lotus® Notes® and Domino.® It's more than e-mail; it's an open platfarm designed far collaboration. It has proven security features and productivity enhancers like document sharing and custom app development. And it's flexible enough ta integrate across multiple platforms, including J2EE™ and Linux.®

_OK, who sat on my lunch?

Lotus.

Download the Lotus Notes & Domino demo at:
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